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TABLE 2-1
SAMPLING LOCATIONS AND HABITAT TYPES

WELLS G&H SUPERFUND SITE OU3

Reach	Sampling Station	Habitat			Location
		Lake/Pond	River	Wetland	
Study Area					
1					**Wells G&H Wetland**
	NRSE			X	Normac Road (sediments)
	NRSO		X		Normac Road (soils)
	14		X		Aberjona River
	22 & TT-22			X	Northeast of Wells G&H Wetland
	21			X	Aberjona River Wetlands
	12		X		Aberjona River
	13			X	Aberjona River Wetlands
	TT-28		X		Eastern portion of Wells G&H Wetland
	WH			X	Eastern portion of Wells G&H Wetland
	TT-27			X	Western portion of Wells G&H Wetland
	BW			X	Board Walk
	15			X	Aberjona River Wetlands
	20			X	Aberjona River Wetlands
	WG			X	Eastern portion of Wells G&H Wetland
	TT-29		X		Eastern portion of Wells G&H Wetland
	19			X	Aberjona River Wetlands
	11		X		Aberjona River
	WW			X	Western portion of Wells G&H Wetland - Wildwood
	JY			X	Junk Yard (North of Salem St.)
	18		X		Aberjona River Wetlands
					Salem Street
	WS		X		Aberjona River
	10		X		Aberjona River
	WSS		X		Aberjona River (North of Salem St.) (soils)
2	TT-30		X		South of Salem Street
	TT-31			X	South of Salem Street
					Cranberry Bog
	TT-32		X		Cranberry Bog (North of stations 9 & 16)
	CB-01			X	Cranberry Bog (North of stations 9 & 16)
	CB-07			X	Cranberry Bog (North of stations 9 & 16)
	CB-04			X	Cranberry Bog (North of stations 9 & 16)
	CB-03			X	Cranberry Bog (North of stations 9 & 16)
	CB-05		X		Cranberry Bog (North of stations 9 & 16) (soils)
	CB-02			X	Cranberry Bog (North of stations 9 & 16)
	CB-06			X	Cranberry Bog (North of stations 9 & 16)
	TT-33		X		Cranberry Bog (North of stations 9 & 16)
	16		X		Aberjona River
	09		X		Aberjona River
	DA		X		Danielson Park (South of stations 9 & 16) (soils)
	AM		X		Montvale Avenue
	KFSE		X		Kraft Foods (South of stations 9 & 16) (sediments)
	KFSO		X		Kraft Foods (South of stations 9 & 16) (soils)
	08		X		Aberjona River
3	07 & DP	X			Aberjona River (sediments) and Davidson Park (soils)
	LP		X		Leonard Pool
	AS		X		Swanton Street

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TABLE 2-1
SAMPLING LOCATIONS AND HABITAT TYPES

WELLS G&H SUPERFUND SITE OU3

Reach	Sampling Station	Habitat			Location
		Lake/Pond	River	Wetland	
4	06 & JP	X			Aberjona River and Judkins Pond
	MP	X			The Winchester Center Mill Pond
5	05		X		Aberjona River
	AJRW		X		Aberjona River south of Bacon Street
6					**Mystic Lakes**
	04 & AO	X			Mystic Lake and Upper Forebay of the Mystic Lakes
	UF	X			Upper Forebay of the Mystic Lakes
	03	X			Mystic Lake
	02	X			Mystic Lake
	LF	X			Lower Forebay of the Mystic Lakes
	01	X			Mystic Lake - Sandy Beach
	UM	X			Upper Mystic Lake
	LM	X			Lower Mystic Lake
Reference					
	23		X		Lubbers Brook - Ref. for Aberjona River
	24			X	Maple Meadow Brook - Ref. for Aberjona R. Wetlands
	25	X			Horn Pond - Ref. for Mystic Lake
	26	X			Wrights Pond - Ref. Lake/Pond
	27		X		Shawsheen River - Ref. River/Stream
	01-IP		X		S. Branch Aberjona River - Ref. River/Stream
	02-IP	X			South Pond - Ref. Lake/Pond
	03-IP	X			Phillips Pond - Ref. Lake/Pond
	04-IP		X		Halls Brook - Ref. River/Stream
	12-IP		X		Halls Brook - Ref. River/Stream
	HB			X	Halls Brook - Ref. Wetland
	SA			X	S. Branch Aberjona River - Ref. Wetland

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TABLE 2-2
SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
01	6	lake	SD-01-01-FW	8/15/1995	1 ft water	
			SD-01-02-FW	8/15/1995	4 ft water	
			SD-01-03-FW	8/15/1995	1 ft water	
			SD-01-04-FW	8/15/1995	4 ft water	
			SD-01-05-FW	8/15/1995	1 ft water	
			SD-01-06-FW	8/15/1995	5 ft water	
			SD-01-06-ME	11/12/1997	7 ft water	
			SD-01-07-FW	8/15/1995	6 ft water	
			SD-01-07-ME	11/12/1997	8 ft water	
			SD-01-08-FW	8/15/1995	1 ft water	
			SD-01-09-FW	8/15/1995	5 ft water	
			SD-01-10-FW	8/15/1995	6 ft water	
02	6	lake	SD-02-01-FW	8/16/1995	4.9 ft water	
			SD-02-01-ME	11/13/1997	5 ft water	
			SD-02-02-FW	8/16/1995	4.9 ft water	
			SD-02-02-ME	11/13/1997	7 ft water	
			SD-02-03-FW	8/16/1995	1 ft or 3.3 ft water	Units not provided in field notes
03	6	lake	SD-03-01-FW	8/16/1995	1.6 ft water	
			SD-03-02-FW	8/16/1995	2.5 ft water	
			SD-03-02-ME	11/13/1997	1.5 ft water	
			SD-03-03-FW	8/16/1995	0.3 ft water	
04 / AO	6	lake	SD-04-01-FW	8/17/1995	4.9 ft water	
			SD-04-02-FW	8/17/1995	4.9 ft water	
			SD-04-02-ME	11/14/1997	7 ft water	
			SD-04-03-FW	8/17/1995	3.3 ft water	
			SD-04-03-ME	11/14/1997	7 ft water	
			SD-AO-01	7/18/2000	4.7 ft water	
			SD-AO-02	7/18/2000	4.4 ft water	
			SD-AO-03	7/18/2000	4.5 ft water	
			SD-AO-03-TR	6/27/2001	5 ft water	
			SD-AO-04	7/18/2000	6.3 ft water	
			SD-AO-05	7/18/2000	5.5 ft water	
05	5	river	SD-05-01-FW	8/17/1995	1 ft water	
			SD-05-02-FW	8/17/1995	not provided	
			SD-05-03-FW	8/17/1995	2 ft water	
			SD-05-03-ME	11/13/1997	3 ft water	
06 / JP	4	lake	SD-06-01-FW	8/18/1995	3.3 ft water	
			SD-06-02-FW	8/18/1995	3.3 ft water	
			SD-06-03-FW	8/18/1995	3.3 ft water	
			SD-06-03-ME	11/18/1997	4 ft water	
			SD-06-03-TR	6/26/2001	3.8 ft water	
			SD-JP-01	7/10/2000	4 ft water	
07	3	lake	SD-07-01-FW	8/18/1995	not provided	
			SD-07-02-FW	8/21/1995	5 ft water	
			SD-07-02-ME	11/20/1997	3.4 ft water	
			SD-07-03-FW	8/21/1995	not provided	
			SD-07-04-FW	8/29/1995	not provided	
			SD-07-05-FW	8/21/1995	2 ft water	
			SD-07-05-ME	11/20/1997	1.2 ft water	
			SD-07-06-FW	8/21/1995	4 ft water	
			SD-07-07-FW	8/21/1995	1.5 ft water	
			SD-07-08-FW	8/21/1995	1.5 ft water	
			SD-07-09-FW	8/21/1995	1 ft water	
			SD-07-10-FW	8/21/1995	1 ft water	
			SD-07-10-ME	11/19/1997	2 ft water	
08	2	river	SD-08-01-FW	8/21/1995	1 ft water	
			SD-08-02-FW	8/21/1995	1.5 ft water	
			SD-08-03-FW	8/21/1995	1.5 ft water	

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TABLE 2-2
SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
09	2	river	SD-09-01-FW	8/22/1995	1 ft water	
			SD-09-02-FW	8/22/1995	not provided	
			SD-09-03-FW	8/22/1995	0.5 ft water	
			SD-09-04-FW	8/22/1995	1 ft water	
			SD-09-05-FW	8/22/1995	1 ft water	
			SD-09-06-FW	8/22/1995	1.5 ft water	
			SD-09-07-FW	8/22/1995	2 ft water	
			SD-09-08-FW	8/22/1995	2 ft water	
			SD-09-09-FW	8/22/1995	0.5 ft water	
			SD-09-10-FW	8/22/1995	0.5 ft water	
10	1	river	SD-10-01-FW	8/23/1995	2 ft water	
			SD-10-01-ME	11/19/1997	2 ft water	
			SD-10-02-FW	8/23/1995	not provided	
			SD-10-02-ME	11/19/1997	2 ft water	
			SD-10-02-TR	6/22/2001	1.4 ft water	
			SD-10-03-FW	8/23/1995	1.5 ft water	
11	1	river	SD-11-01-ME	11/14/1997	1 ft water	
			SD-11-01-FW	8/24/1995	2 ft water	
			SD-11-02-FW	8/24/1995	2 - 2.5 ft water	
			SD-11-03-FW	8/24/1995	2 - 2.5 ft water	
12	1	river	SD-12-01-FW	8/31/1995	1 ft water	
			SD-12-01-ME	11/20/1997	1 ft water	wetland habitat
			SD-12-02-FW	8/31/1995	not provided	
			SD-12-03-FW	8/31/1995	0.5 ft water	
			SD-12-03-ME	11/20/1997	5 ft water	
			SD-12-03-TR	6/19/2001	4.5 ft water	
13	1	wetland	SD-13-01-FW	9/1/1995	0.3 ft water	sample date 9/6/95 in database
			SD-13-01-ME	11/17/1997	2 ft water	
			SD-13-01-TR	6/22/2001	0.3 ft water	
			SD-13-02-FW	9/1/1995	0.3 ft water	sample date 9/6/95 in database
			SD-13-03-FW	9/1/1995	no standing water	sample date 9/6/95 in database
			SD-13-03-ME	11/17/1997	2 ft water	
14	1	river	SD-14-01-FW	9/5/1995	1 ft water	
			SD-14-02-FW	9/5/1995	1 ft water	
			SD-14-03-FW	9/5/1995	1.5 ft water	
15	1	wetland	SD-15-01-FW	9/5/1995	0.5 ft water	
			SD-15-01-ME	11/17/1997	2.5 ft water	
			SD-15-02-FW	9/5/1995	0.5 ft water	
			SD-15-03-FW	9/5/1995	0.5 ft water	
16	2	river	SD-16-01-FW	8/29/1995	not provided	
			SD-16-02-FW	8/23/1995	1 ft water	
			SD-16-03-FW	8/23/1995	1.5 ft water	
18	1	river	SD-18-01-FW	8/29/1995	not provided	
			SD-18-02-FW	9/7/1995	0.2 ft water	
			SD-18-02-ME	11/18/1997	0.5 ft water	
			SD-18-02-TR	6/21/2001	1.1 ft water	
			SD-18-03-FW	9/7/1995	0.4 ft water	
			SD-18-03-ME	11/18/1997	0.3 ft water	
19	1	wetland	SD-19-01-FW	8/31/1995	no standing water	
			SD-19-01-ME	11/19/1997	0.3 ft water	
			SD-19-01-TR	6/19/2001	0.8 ft water	
			SD-19-02-FW	8/31/1995	no standing water	
			SD-19-03-FW	8/31/1995	no standing water	
20	1	wetland	SD-20-01-FW	9/7/1995	no standing water	
			SD-20-01-ME	11/17/1997	2 ft water	
			SD-20-02-FW	9/7/1995	no standing water	
			SD-20-03-FW	9/7/1995	no standing water	
21	1	wetland	SD-21-01-FW	9/8/1995	no standing water	
			SD-21-01-ME	11/14/1997	1 ft water	
			SD-21-02-FW	9/8/1995	no standing water	
			SD-21-03-FW	9/8/1995	no standing water	

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TABLE 2-2
SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
22/TT-22	1	wetland	SD-22-01-FW	9/8/1995	no standing water	
			SD-22-01-TR	6/18/2001	0.2 ft water	
			SD-22-02-FW	9/8/1995	no standing water	
			SD-22-02-ME	11/12/1997	no standing water	
			SD-22-03-FW	9/8/1995	no standing water	
			SD-TT-22-01	2/7/2001	0.5 ft water	
			SD-TT-22-02	2/7/2001	0.5 ft water	
			SD-TT-22-03	2/7/2001	1 ft water	
AM	2	river	SD-AM-01	7/10/2000	1 ft water	
AS	3	river	SD-AS-01	7/10/2000	1 ft water	
			SD-AS-02	7/10/2000	1.5 ft water	
BW	1	wetland	SD-BW-01	7/17/2002	no standing water	
			SD-BW-02	7/17/2002	no standing water	
			SD-BW-03	7/17/2002	no standing water	
			SD-BW-04	7/17/2002	no standing water	
			SD-BW-05	7/17/2002	no standing water	
CB-01	2	wetland	SD-CB-01-01	2/9/2001	6" water over sed	
			SD-CB-01-02	2/9/2001	6" water over sed	
			SD-CB-01-03	2/9/2001	3" water over sed	
			SD-CB-01-04	2/9/2001	3" water over sed	
			SD-CB-01-05	2/9/2001	4" water & 4" ice	
			SD-CB-01-06	2/9/2001	2" snow over sed	
			SD-CB-01-07	2/9/2001	6" water	
			SD-CB-01-08	2/9/2001	8" ice over sed	
			SD-CB-01-09	2/9/2001	6" water	
			SD-CB-01-10	2/9/2001	3" water	
CB-02	2	wetland	SD-CB-02-01	2/8/2001	6" water	
			SD-CB-02-02	2/8/2001	6" water, thin ice over water	
			SD-CB-02-03	2/8/2001	6" water	
			SD-CB-02-04	2/8/2001	not provided, but near CB-02-05	
			SD-CB-02-05	2/8/2001	6" water, thin ice over water	
			SD-CB-02-06	2/8/2001	4" water, 4" ice over water	
			SD-CB-02-07	2/8/2001	6" water, 4" ice over water	
			SD-CB-02-08	2/8/2001	6" water, 5" ice over water	
			SD-CB-02-09	2/8/2001	6" water, 5" ice over water	
			SD-CB-02-10	2/8/2001	6" water, 8" ice over water	
CB-03	2	wetland	SD-CB-03-01	2/9/2001	2" water, 6" snow over water	
			SD-CB-03-02	2/9/2001	1 ft snow over sed	
			SD-CB-03-03	2/9/2001	1 ft 2" ice & snow over sed	
			SD-CB-03-04	2/8/2001	1 ft ice & snow over sed	
			SD-CB-03-05	2/8/2001	8" ice & snow over sed	
			SD-CB-03-06	2/8/2001	3" ice & snow over sed	
			SD-CB-03-07	2/8/2001	8" ice over sed	
			SD-CB-03-08	2/8/2001	3" water, 3" snow & ice over water	
			SD-CB-03-09	2/8/2001	6" water	
			SD-CB-03-10	2/8/2001	not provided, but near CB-03-09	
			SD-CB-03-11	2/8/2001	4" water	
			SD-CB-03-12	2/8/2001	8" ice & snow over sed	
CB-04	2	wetland	SD-CB-04-01	7/11/2002	less than 1 ft water	
			SD-CB-04-02	7/11/2002	no standing water	
			SD-CB-04-03	7/11/2002	no standing water	
			SD-CB-04-04	7/11/2002	no standing water	
			SD-CB-04-05	7/11/2002	less than 1 ft water	
			SD-CB-04-06	7/11/2002	no standing water	
			SD-CB-04-07	7/11/2002	no standing water	
			SD-CB-04-08	7/11/2002	less than 1 ft water	
			SD-CB-04-09	7/11/2002	less than 1 ft water	
			SD-CB-04-10	7/11/2002	less than 1 ft water	

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TABLE 2-2
SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
CB-05	2	river	SO-CB-05-01	7/11/2002	NA (soil sample)	
			SO-CB-05-02	7/11/2002	NA (soil sample)	
			SO-CB-05-03	7/11/2002	NA (soil sample)	
			SO-CB-05-04	7/11/2002	NA (soil sample)	
			SO-CB-05-05	7/11/2002	NA (soil sample)	
			SO-CB-05-06	7/11/2002	NA (soil sample)	
			SO-CB-05-07	7/11/2002	NA (soil sample)	
			SO-CB-05-08	7/11/2002	NA (soil sample)	
			SO-CB-05-09	7/11/2002	NA (soil sample)	
			SO-CB-05-10	7/11/2002	NA (soil sample)	
CB-06	2	wetland	SD-CB-06-01	7/11/2002	less than 0.5 ft water	
			SD-CB-06-02	7/11/2002	less than 1 ft water	
			SD-CB-06-03	7/11/2002	less than 1 ft water	
			SD-CB-06-04	7/11/2002	less than 1 ft water	
			SD-CB-06-05	7/11/2002	no standing water	
			SD-CB-06-06	7/11/2002	less than 1 ft water	
			SD-CB-06-07	7/11/2002	less than 0.5 ft water	
			SD-CB-06-08	7/11/2002	less than 1 ft water	
			SD-CB-06-09	7/11/2002	less than 0.5 ft water	
			SD-CB-06-10	7/11/2002	no standing water	
CB-07	2	wetland	SD-CB-07-01	7/11/2002	no standing water	
			SD-CB-07-02	7/11/2002	no standing water	
			SD-CB-07-03	7/11/2002	no standing water	
			SD-CB-07-04	7/11/2002	no standing water	
			SD-CB-07-05	7/11/2002	no standing water	
			SD-CB-07-06	7/11/2002	no standing water	
DA	2	river	SO-DA-01	7/11/2002	NA (soil sample)	
			SO-DA-02	7/11/2002	NA (soil sample)	
			SO-DA-03	7/11/2002	NA (soil sample)	
			SO-DA-04	7/11/2002	NA (soil sample)	
			SO-DA-05	7/11/2002	NA (soil sample)	
DP	3	lake	SO-DP-01	7/11/2000	NA (soil sample)	
			SO-DP-02	7/11/2000	NA (soil sample)	
			SO-DP-03	7/11/2000	NA (soil sample)	
			SO-DP-04	7/11/2000	NA (soil sample)	
			SO-DP-05	7/11/2000	NA (soil sample)	
			SO-DP-06	7/11/2000	NA (soil sample)	
			SO-DP-07	7/11/2000	NA (soil sample)	
			SO-DP-08	7/11/2000	NA (soil sample)	
			SO-DP-09	7/11/2000	NA (soil sample)	
			SO-DP-10	7/11/2000	NA (soil sample)	
			SO-DP-11	7/11/2000	NA (soil sample)	
			SO-DP-12	7/11/2000	NA (soil sample)	
			SO-DP-13	7/11/2000	NA (soil sample)	
			SO-DP-14	7/11/2000	NA (soil sample)	
			SO-DP-15	7/11/2000	NA (soil sample)	
			SO-DP-16	7/11/2000	NA (soil sample)	
			SO-DP-17	7/11/2000	NA (soil sample)	
			SO-DP-18	7/11/2000	NA (soil sample)	
			SO-DP-19	7/11/2000	NA (soil sample)	
			SO-DP-20	7/11/2000	NA (soil sample)	
			SO-DP-21	7/11/2000	NA (soil sample)	
			SO-DP-22	7/11/2000	NA (soil sample)	
			SO-DP-23	7/11/2000	NA (soil sample)	
			SO-DP-24	7/11/2000	NA (soil sample)	
			SO-DP-25	7/11/2000	NA (soil sample)	
			SO-DP-26	7/11/2000	NA (soil sample)	
NRSE	1	wetland	SD-NR-01	9/4/2002	1" water	
			SD-NR-02	9/4/2002	1" water	
			SD-NR-03	9/4/2002	no standing water	
			SD-NR-04	9/4/2002	no standing water	
			SD-NR-05	9/4/2002	1" water	

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SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
JY	1	wetland	SD-JY-06	7/18/2002	no standing water	
			SD-JY-07	7/18/2002	no standing water	
			SD-JY-08	7/18/2002	no standing water	
			SD-JY-09	7/18/2002	no standing water	
			SD-JY-10	7/18/2002	no standing water	
			SD-JY-11	7/18/2002	no standing water	
			SD-JY-12	7/18/2002	no standing water	
			SD-JY-13	7/18/2002	no standing water	
			SD-JY-14	7/18/2002	no standing water	
			SD-JY-15	7/18/2002	no standing water	
KFSE	2	river	SD-KF-01	9/4/2002	4" water	
			SD-KF-02	9/4/2002	4" water	
			SD-KF-03	9/4/2002	4" water	
			SD-KF-04	9/4/2002	2" water	
			SD-KF-05	9/4/2002	4" water	
			SD-KF-06	9/4/2002	6" water	
			SD-KF-07	9/4/2002	no standing water	
			SD-KF-08	9/4/2002	2.5 " water	
			SD-KF-09	9/4/2002	9" water	
			SD-KF-10	9/4/2002	4" water	
KFSO	2	river	SO-KF-01	9/4/2002	NA (soil sample)	
			SO-KF-02	9/4/2002	NA (soil sample)	
			SO-KF-03	9/4/2002	NA (soil sample)	
			SO-KF-04	9/4/2002	NA (soil sample)	
			SO-KF-05	9/4/2002	NA (soil sample)	
			SO-KF-06	9/4/2002	NA (soil sample)	
			SO-KF-07	9/4/2002	NA (soil sample)	
			SO-KF-08	9/4/2002	NA (soil sample)	
			SO-KF-09	9/4/2002	NA (soil sample)	
			SO-KF-10	9/4/2002	NA (soil sample)	
LF	6	lake	SD-LF-01	7/17/2000	5.2 ft water	
			SD-LF-02	7/17/2000	6.8 ft water	
LM	6	lake	SD-LM-01	7/17/2000	75 ft water	
			SD-LM-02	7/17/2000	37 ft water	
			SD-LM-03	7/17/2000	52 ft water	
LP	3	river	SD-LP-01	7/12/2002	1.5 ft water	
			SD-LP-02	7/12/2002	1 ft water	
			SD-LP-03	7/12/2002	1.5 ft water	
			SD-LP-04	7/12/2002	1 ft water	
			SD-LP-05	7/12/2002	2 ft water	
			SD-LP-06	7/12/2002	1 ft water	
			SD-LP-07	7/12/2002	1.5 ft water	
			SD-LP-08	7/12/2002	2 ft water	
			SD-LP-09	7/12/2002	no standing water	Location under water day prior to sampling
			SD-LP-10	7/12/2002	4" water	
			SD-LP-11	9/13/2002	1" water	
			SD-LP-12	9/13/2002	no standing water	
			SD-LP-13	9/13/2002	no standing water	
			SD-LP-14	9/13/2002	no standing water	
			SD-LP-15	9/13/2002	no standing water	
MP	4	lake	SD-MP-01	7/10/2000	2.2 ft water	Water level artificially low due to dam release
			SD-MP-02	7/10/2000	2 ft water	Water level artificially low due to dam release
NRSO	1	river	SO-NR-16	9/4/2002	NA (soil sample)	
			SO-NR-17	9/4/2002	NA (soil sample)	
			SO-NR-18	9/4/2002	NA (soil sample)	
			SO-NR-19	9/4/2002	NA (soil sample)	
			SO-NR-20	9/4/2002	NA (soil sample)	
WSS	1	river	SO-SS-01	7/12/2002	NA (soil sample)	
			SO-SS-02	7/12/2002	NA (soil sample)	
			SO-SS-03	7/12/2002	NA (soil sample)	
			SO-SS-04	7/12/2002	NA (soil sample)	
			SO-SS-05	7/12/2002	NA (soil sample)	

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TABLE 2-2
SEDIMENT AND SOIL SAMPLE-SPECIFIC INFORMATION

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
TT-27	1	wetland	SD-TT-27-01	2/6/2001	8" ice over sed, 1 ft snow over ice	
			SD-TT-27-02	2/6/2001	4" water, 6"snow &ice over water	
			SD-TT-27-03	2/6/2001	6" ice, 1 ft of snow over ice	
			SD-TT-27-04	2/7/2001	1 ft water	
TT-28	1	river	SD-TT-28-01	2/7/2001	1 ft water	
			SD-TT-28-02	2/7/2001	1 ft water	
			SD-TT-28-03	2/7/2001	1 ft water	
TT-29	1	river	SD-TT-29-01	2/12/2001	12-18" water, 6" ice over water	
			SD-TT-29-02	2/12/2001	12" water, 6" ice over water	
			SD-TT-29-03	2/12/2001	18" water, 6" ice over water	
			SD-TT-29-03-TR	6/19/2001	1.0 ft water	
TT-30	2	river	SD-TT-30-01	2/12/2001	6" water	
			SD-TT-30-01-TR	6/22/2001	0.6 ft water	
			SD-TT-30-02	2/12/2001	6" water	
			SD-TT-30-03	2/12/2001	4" water, 2" ice over water	
TT-31	2	wetland	SD-TT-31-01	2/12/2001	4" water	
			SD-TT-31-02	2/12/2001	6" water, 3" ice over water	
			SD-TT-31-03	2/12/2001	2" water, 4" ice over water	
TT-32	2	river/ wetland[1]	SD-TT-32-01	2/9/2001	10" water	
			SD-TT-32-02	2/9/2001	6" water	
			SD-TT-32-02-TR	6/20/2001	0.6 ft water	
			SD-TT-32-03	2/9/2001	4" water	
TT-33	2	river/ wetland[1]	SD-TT-33-01	2/8/2001	4" water	
			SD-TT-33-02	2/8/2001	6" water	
			SD-TT-33-02-TR	6/20/2001	0.5 ft water	
			SD-TT-33-03	2/8/2001	4" water	
UF	6	lake	SD-UF-01	7/18/2000	4.5 ft water	
			SD-UF-02	7/18/2000	5.6 ft water	
			SD-UF-02-TR	6/27/2001	7.1 ft water	
			SD-UF-03	7/18/2000	3.7 ft water	
UM	6	lake	SD-UM-01	7/17/2000	85 ft water	
			SD-UM-02	7/17/2000	78 ft water	
			SD-UM-03	7/17/2000	52 ft water	
WG	1	wetland	SD-WG-01	7/13/2000	3" water	
			SD-WG-02	7/13/2000	2" water	
			SD-WG-03	7/13/2000	no standing water	
			SD-WG-04	7/13/2000	no standing water	
			SD-WG-05	7/13/2000	4" water	
			SD-WG-06	7/13/2000	4" water	
			SD-WG-07	7/13/2000	2" water	
			SD-WG-08	7/13/2000	2" water	
			SD-WG-09	7/13/2000	no standing water	
			SD-WG-10	7/13/2000	2" water	
			SD-WG-11	7/13/2000	no standing water	
			SD-WG-12	7/13/2000	2" water	
			SD-WG-13	7/13/2000	0" water	
			SD-WG-14	7/13/2000	no standing water	
			SD-WG-15	7/13/2000	2" water	
			SD-WG-16	7/13/2000	no standing water	
			SD-WG-17	7/13/2000	no standing water	
			SD-WG-18	7/13/2000	no standing water	
			SD-WG-19	7/13/2000	no standing water	
			SD-WG-20	7/13/2000	no standing water	
WH	1	wetland	SD-WH-01	7/12/2000	2" water	
			SD-WH-02	7/12/2000	4" water	
			SD-WH-03	7/12/2000	2" water	
			SD-WH-04	7/12/2000	3" water	
			SD-WH-05	7/12/2000	2" water	
			SD-WH-06	7/12/2000	2" water	
			SD-WH-07	7/12/2000	1" water	
			SD-WH-07-TR	6/18/2001	1.2 ft water	
			SD-WH-08	7/12/2000	2" water	
			SD-WH-09	7/12/2000	3-4" water	
			SD-WH-10	7/12/2000	3" water	

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WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
WS	1	river	SD-WS-01	7/11/2000	3" water	
			SD-WS-02	7/11/2000	2" water	
			SD-WS-03	7/11/2000	1" water	
			SD-WS-04	7/11/2000	2" water	
			SD-WS-05	7/11/2000	2" water	
			SD-WS-06	7/11/2000	2" water	
			SD-WS-07	7/11/2000	3" water	
			SD-WS-08	7/11/2000	2" water	
			SD-WS-09	7/11/2000	1" water	
			SD-WS-10	7/11/2000	2" water	
WW	1	wetland	SD-WW-01	11/28/2000	less than 1 ft water	
			SD-WW-02	11/28/2000	less than 1 ft water	
			SD-WW-03	11/28/2000	less than 1 ft water	
			SD-WW-04	11/28/2000	less than 1 ft water	
			SD-WW-05	11/28/2000	less than 1 ft water	
			SD-WW-06	11/28/2000	less than 1 ft water	
			SD-WW-06-TR	6/21/2001	0.8 ft water	
			SD-WW-07	11/28/2000	less than 1 ft water	
			SD-WW-08	11/28/2000	less than 1 ft water	
			SD-WW-08-02	2/6/2001	not provided	Cr VI, redox, sulfide, pH analyses only
			SD-WW-09	11/28/2000	less than 1 ft water	
			SD-WW-10	11/28/2000	less than 1 ft water	
			SD-WW-11	11/28/2000	less than 1 ft water	
			SD-WW-12	11/28/2000	less than 1 ft water	
AJRW	5	river	SD-AJRW-01	3/15/2004	3.5 ft water	
			SD-AJRW-02	3/15/2004	2.25 ft water	
			SD-AJRW-03	3/15/2004	3 ft water	
			SD-AJRW-04	3/15/2004	3.25 ft water	
			SD-AJRW-05	3/15/2004	3.75 ft water	
			SD-AJRW-06	3/15/2004	1.5 ft water	
			SD-AJRW-07	4/26/2004	no standing water	
			SO-AJRW-08	4/26/2004	NA (soil sample)	
			SD-AJRW-09	4/26/2004	no standing water	
			SO-AJRW-10	4/26/2004	NA (soil sample)	
			SD-AJRW-11	4/26/2004	no standing water	
			SO-AJRW-12	4/26/2004	NA (soil sample)	
			SD-AJRW-13	4/26/2004	no standing water	
			SO-AJRW-14	4/26/2004	NA (soil sample)	
			SD-AJRW-15	4/26/2004	no standing water	
			SO-AJRW-16	4/26/2004	NA (soil sample)	
			SD-AJRW-17	4/26/2004	no standing water	
			SO-AJRW-18	4/26/2004	NA (soil sample)	
			SD-AJRW-19	4/26/2004	no standing water	
			SO-AJRW-20	4/26/2004	NA (soil sample)	
			SD-AJRW-21	4/26/2004	no standing water	
			SO-AJRW-22	4/26/2004	NA (soil sample)	
			SD-AJRW-23	4/26/2004	no standing water	
			SO-AJRW-24	4/26/2004	NA (soil sample)	
REFERENCE SAMPLES						
01-IP		river	SD-MC-01	6/21/1999	0.3 ft water	
			SD-MC-01-TR	6/25/2001	0.3 ft water	
02-IP		pond	SD-MC-02	6/21/1999	2 ft. water	
03-IP		pond	SD-MC-03	6/18/1999	9.2 ft water	Depth questionable; sw sample at 9.18 ft in notes
			SD-MC-03-TR	6/25/2001	13 ft water	
04-IP		river	SD-MC-04	6/17/1999	not provided	
			SD-MC-04-TR	6/26/2001	0.4 ft water	
12-IP		river	SD-MC-12	6/17/1999	0.02 ft water	
23		river	SD-23-01-FW	8/30/1995	not provided	
			SD-23-02-FW	8/30/1995	1.5 ft water	
			SD-23-03-FW	8/30/1995	1 ft water	

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Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water above Sample	Notes
24		wetland	SD-24-01-FW	8/30/1995	0.7 ft water	
			SD-24-02-FW	8/30/1995	1 ft water	
			SD-24-03-FW	8/30/1995	not provided	
			SD-24-03-ME	11/12/1997	1 ft water	
25		lake	SD-25-01-FW	9/11/1995	3.5 ft water	
			SD-25-02-FW	9/11/1995	4 ft water	
			SD-25-02-ME	11/18/1997	not provided	
			SD-25-03-FW	9/11/1995	3 ft water	
26		lake	SD-26-01-FW	9/11/1995	3 ft water	
			SD-26-02-FW	9/11/1995	2.5 ft water	
			SD-26-03-FW	9/11/1995	2.5 ft water	
27		river	SD-27-01-FW	9/12/1995	2.5 ft water	
			SD-27-02-FW	9/12/1995	1.5 ft water	
			SD-27-03-FW	9/12/1995	1.5 ft water	
HB		wetland	SD-HB-00-TR	6/26/2001	0.8 ft water	
SA		wetland	SD-SA-01-TR	6/25/2001	0.7 ft water	

NA - Not Applicable

[1] Primary TT-32 and TT-33 samples were collected along the stream channel, while the TR samples were collected in the wetland vegetation adjacent to the main channel

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TABLE 2-3
SURFACE WATER DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	3	1.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-3
SURFACE WATER DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-3
SURFACE WATER DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum						0 / 1	23.5	12
Antimony						0 / 1	1.1	0.55
Arsenic	2.9		2.9		SW-23-01	1 / 1	N/A	2.9
Barium	20.3		20.3		SW-23-01	1 / 1	N/A	20
Beryllium						0 / 1	0.099	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	24300		24300		SW-23-01	1 / 1	N/A	24300
Chromium	0.47		0.47		SW-23-01	1 / 1	N/A	0.47
Cobalt						0 / 1	0.5	0.25
Copper						0 / 1	0.35	0.18
Cyanide						0 / 1	5	2.5
Iron	1470		1470		SW-23-01	1 / 1	N/A	1470
Lead						0 / 1	0.75	0.38
Magnesium	5150		5150		SW-23-01	1 / 1	N/A	5150
Manganese	780		780		SW-23-01	1 / 1	N/A	780
Mercury	0.11		0.11		SW-23-01	1 / 1	N/A	0.11
Nickel	0.66		0.66		SW-23-01	1 / 1	N/A	0.66
Potassium	4920		4920		SW-23-01	1 / 1	N/A	4920
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	48800		48800		SW-23-01	1 / 1	N/A	48800
Thallium						0 / 1	1.5	0.75
Vanadium	0.89		0.89		SW-23-01	1 / 1	N/A	0.89
Zinc	2.2	J	2.2	J	SW-23-01	1 / 1	N/A	2.2
Total Suspended Solids (mg/L)	5.9		5.9		SW-23-01	1 / 1	N/A	5.9
Dissolved Organic Carbon (mg/L)	8.2		8.2		SW-23-01	1 / 1	N/A	8.2
Total Dissolved Solids (mg/L)	292		292		SW-23-01	1 / 1	N/A	292
Alkalinity (as CaCO3) (mg/L)	52		52		SW-23-01	1 / 1	N/A	52
Chloride (mg/L)	88.6		88.6		SW-23-01	1 / 1	N/A	89
Nitrate/Nitrite Nitrogen (mg/L)	0.08		0.08		SW-23-01	1 / 1	N/A	0.080
Sulfate (mg/L)	18		18		SW-23-01	1 / 1	N/A	18

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-4
SURFACE WATER DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	4	2.0
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-4
SURFACE WATER DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-4
SURFACE WATER DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane	0.0017	J	0.0017	J	SW-24-01	1 / 1	N/A	0.0017
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	142		142		SW-24-01	1 / 1	N/A	142
Antimony						0 / 1	1.1	0.55
Arsenic	3.2		3.2		SW-24-01	1 / 1	N/A	3.2
Barium	45.1		45.1		SW-24-01	1 / 1	N/A	45
Beryllium						0 / 1	0.1	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	37000		37000		SW-24-01	1 / 1	N/A	37000
Chromium	0.88		0.88		SW-24-01	1 / 1	N/A	0.88
Cobalt						0 / 1	0.5	0.25
Copper	3.9		3.9		SW-24-01	1 / 1	N/A	3.9
Cyanide						0 / 1	5	2.5
Iron	2780		2780		SW-24-01	1 / 1	N/A	2780
Lead	6.3		6.3		SW-24-01	1 / 1	N/A	6.3
Magnesium	5950		5950		SW-24-01	1 / 1	N/A	5950
Manganese	520		520		SW-24-01	1 / 1	N/A	520
Mercury	0.13		0.13		SW-24-01	1 / 1	N/A	0.13
Nickel	1.8		1.8		SW-24-01	1 / 1	N/A	1.8
Potassium	6260		6260		SW-24-01	1 / 1	N/A	6260
Selenium						0 / 1	1.9	0.95
Silver						0 / 1	0.4	0.20
Sodium	69100		69100		SW-24-01	1 / 1	N/A	69100
Thallium						0 / 1	1.5	0.75
Vanadium						0 / 1	0.55	0.28
Zinc	16.1	J	16.1	J	SW-24-01	1 / 1	N/A	16
Total Suspended Solids (mg/L)	28		28		SW-24-01	1 / 1	N/A	28
Dissolved Organic Carbon (mg/L)	7.8		7.8		SW-24-01	1 / 1	N/A	7.8
Total Dissolved Solids (mg/L)	398		398		SW-24-01	1 / 1	N/A	398
Alkalinity (as CaCO3) (mg/L)	53		53		SW-24-01	1 / 1	N/A	53
Chloride (mg/L)	114		114		SW-24-01	1 / 1	N/A	114
Nitrate/Nitrite Nitrogen (mg/L)	0.12		0.12		SW-24-01	1 / 1	N/A	0.12
Sulfate (mg/L)	73		73		SW-24-01	1 / 1	N/A	73

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-5
SURFACE WATER DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-5
SURFACE WATER DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-5
SURFACE WATER DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	47.15		47.15		SW-25-01	1 / 1	N/A	47
Antimony						0 / 1	1.1	0.55
Arsenic						0 / 1	1.4	0.70
Barium	24.55		24.55		SW-25-01	1 / 1	N/A	25
Beryllium						0 / 1	0.099	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	23350		23350		SW-25-01	1 / 1	N/A	23350
Chromium						0 / 1	0.25	0.13
Cobalt						0 / 1	0.5	0.25
Copper	1		1		SW-25-01	1 / 1	N/A	1.0
Cyanide						0 / 1	5	2.5
Iron	118		118		SW-25-01	1 / 1	N/A	118
Lead	0.665	J	0.665	J	SW-25-01	1 / 1	N/A	0.67
Magnesium	3825		3825		SW-25-01	1 / 1	N/A	3825
Manganese	46.4		46.4		SW-25-01	1 / 1	N/A	46
Mercury	0.115		0.115		SW-25-01	1 / 1	N/A	0.12
Nickel	0.78		0.78		SW-25-01	1 / 1	N/A	0.78
Potassium	4230		4230		SW-25-01	1 / 1	N/A	4230
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	47100		47100		SW-25-01	1 / 1	N/A	47100
Thallium						0 / 1	1.5	0.75
Vanadium	0.85		0.85		SW-25-01	1 / 1	N/A	0.85
Zinc	1.375	J	1.375	J	SW-25-01	1 / 1	N/A	1.4
Total Suspended Solids (mg/L)	3.65		3.65		SW-25-01	1 / 1	N/A	3.7
Dissolved Organic Carbon (mg/L)	5.35		5.35		SW-25-01	1 / 1	N/A	5.4
Total Dissolved Solids (mg/L)	205		205		SW-25-01	1 / 1	N/A	205
Alkalinity (as CaCO3) (mg/L)	43.5		43.5		SW-25-01	1 / 1	N/A	44
Chloride (mg/L)	80.55		80.55		SW-25-01	1 / 1	N/A	81
Nitrate/Nitrite Nitrogen (mg/L)	0.015		0.015		SW-25-01	1 / 1	N/A	0.015
Sulfate (mg/L)	23		23		SW-25-01	1 / 1	N/A	23

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-6
SURFACE WATER DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-6
SURFACE WATER DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-6
SURFACE WATER DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum						0 / 1	29.2	15
Antimony						0 / 1	1.1	0.55
Arsenic						0 / 1	1	0.50
Barium	40.5		40.5		SW-26-01	1 / 1	N/A	41
Beryllium						0 / 1	0.1	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	17700		17700		SW-26-01	1 / 1	N/A	17700
Chromium						0 / 1	0.25	0.13
Cobalt						0 / 1	0.5	0.25
Copper	1.4		1.4		SW-26-01	1 / 1	N/A	1.4
Cyanide						0 / 1	5	2.5
Iron	221		221		SW-26-01	1 / 1	N/A	221
Lead						0 / 1	0.75	0.38
Magnesium	2050		2050		SW-26-01	1 / 1	N/A	2050
Manganese	285		285		SW-26-01	1 / 1	N/A	285
Mercury						0 / 1	0.08	0.040
Nickel						0 / 1	0.5	0.25
Potassium	1080		1080		SW-26-01	1 / 1	N/A	1080
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	88300		88300		SW-26-01	1 / 1	N/A	88300
Thallium						0 / 1	1.5	0.75
Vanadium						0 / 1	0.55	0.28
Zinc	2.7	J	2.7	J	SW-26-01	1 / 1	N/A	2.7
Total Suspended Solids (mg/L)	1.8		1.8		SW-26-01	1 / 1	N/A	1.8
Dissolved Organic Carbon (mg/L)	4.6		4.6		SW-26-01	1 / 1	N/A	4.6
Total Dissolved Solids (mg/L)	302		302		SW-26-01	1 / 1	N/A	302
Alkalinity (as CaCO3) (mg/L)	21		21		SW-26-01	1 / 1	N/A	21
Chloride (mg/L)	166		166		SW-26-01	1 / 1	N/A	166
Nitrate/Nitrite Nitrogen (mg/L)	0.01		0.01		SW-26-01	1 / 1	N/A	0.010
Sulfate (mg/L)	10		10		SW-26-01	1 / 1	N/A	10

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-7
SURFACE WATER DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-7
SURFACE WATER DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-7
SURFACE WATER DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	21.3		21.3		SW-27-01	1 / 1	N/A	21
Antimony						0 / 1	1.1	0.55
Arsenic						0 / 1	1.7	0.85
Barium	15.4		15.4		SW-27-01	1 / 1	N/A	15
Beryllium						0 / 1	0.099	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	19700		19700		SW-27-01	1 / 1	N/A	19700
Chromium	0.34		0.34		SW-27-01	1 / 1	N/A	0.34
Cobalt						0 / 1	0.5	0.25
Copper	0.45		0.45		SW-27-01	1 / 1	N/A	0.45
Cyanide						0 / 1	5	2.5
Iron	251		251		SW-27-01	1 / 1	N/A	251
Lead						0 / 1	0.75	0.38
Magnesium	4280		4280		SW-27-01	1 / 1	N/A	4280
Manganese	47.5		47.5		SW-27-01	1 / 1	N/A	48
Mercury	0.097		0.097		SW-27-01	1 / 1	N/A	0.097
Nickel	0.75		0.75		SW-27-01	1 / 1	N/A	0.75
Potassium	4100		4100		SW-27-01	1 / 1	N/A	4100
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	42200		42200		SW-27-01	1 / 1	N/A	42200
Thallium						0 / 1	1.5	0.75
Vanadium						0 / 1	0.55	0.28
Zinc						0 / 1	1.6	0.80
Total Suspended Solids (mg/L)	1		1		SW-27-01	1 / 1	N/A	1.0
Dissolved Organic Carbon (mg/L)	4.6		4.6		SW-27-01	1 / 1	N/A	4.6
Total Dissolved Solids (mg/L)	208		208		SW-27-01	1 / 1	N/A	208
Alkalinity (as CaCO3) (mg/L)	38		38		SW-27-01	1 / 1	N/A	38
Chloride (mg/L)	75.4		75.4		SW-27-01	1 / 1	N/A	75
Nitrate/Nitrite Nitrogen (mg/L)	0.38		0.38		SW-27-01	1 / 1	N/A	0.38
Sulfate (mg/L)	21		21		SW-27-01	1 / 1	N/A	21

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-8
SURFACE WATER DATA SUMMARY - STATION SW-01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 1	2	1.0
1,1,2,2-Tetrachloroethane						0 / 1	2	1.0
1,1,2-Trichloroethane						0 / 1	2	1.0
1,1-Dichloroethane						0 / 1	2	1.0
1,1-Dichloroethene						0 / 1	2	1.0
1,2-Dichloroethane						0 / 1	2	1.0
1,2-Dichloropropane						0 / 1	2	1.0
2-Butanone						0 / 1	2	1.0
2-Hexanone						0 / 1	2	1.0
4-Methyl-2-Pentanone						0 / 1	2	1.0
Acetone						0 / 1	5	2.5
Benzene						0 / 1	2	1.0
Bromodichloromethane						0 / 1	2	1.0
Bromoform						0 / 1	2	1.0
Bromomethane						0 / 1	2	1.0
Carbon disulfide						0 / 1	2	1.0
Carbon tetrachloride						0 / 1	2	1.0
Chlorobenzene						0 / 1	2	1.0
Chloroethane						0 / 1	2	1.0
Chloroform						0 / 1	2	1.0
Chloromethane						0 / 1	2	1.0
cis-1,2-Dichloroethene						0 / 1	2	1.0
cis-1,3-Dichloropropene						0 / 1	2	1.0
Dibromochloromethane						0 / 1	2	1.0
Ethylbenzene						0 / 1	2	1.0
Methylene chloride						0 / 1	5	2.5
o-Xylene						0 / 1	2	1.0
p/m-Xylene						0 / 1	4	2.0
Styrene						0 / 1	2	1.0
Tetrachloroethene						0 / 1	2	1.0
Toluene						0 / 1	2	1.0
trans-1,2-Dichloroethene						0 / 1	2	1.0
trans-1,3-Dichloropropene						0 / 1	2	1.0
Trichloroethene						0 / 1	2	1.0
Vinyl Chloride						0 / 1	2	1.0

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TABLE 2-8
SURFACE WATER DATA SUMMARY - STATION SW-01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
1,2-Dichlorobenzene						0 / 1	5	2.5
1,3-Dichlorobenzene						0 / 1	5	2.5
1,4-Dichlorobenzene						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	13	6.5
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	13	6.5
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	13	6.5
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	5	2.5
4,6-Dinitro-2-methylphenol						0 / 1	13	6.5
4-Bromophenyl-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	13	6.5
4-Nitrophenol						0 / 1	13	6.5
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-Chloroethyl)ether						0 / 1	5	2.5
bis(2-chloroisopropyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Carbazole						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenz(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	13	6.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
n-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	13	6.5
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-8
SURFACE WATER DATA SUMMARY - STATION SW-01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.0091	0.0046
4,4'-DDE						0 / 1	0.0091	0.0046
4,4'-DDT						0 / 1	0.0091	0.0046
Aldrin						0 / 1	0.0091	0.0046
alpha-BHC						0 / 1	0.0091	0.0046
alpha-Chlordane						0 / 1	0.0091	0.0046
Aroclor 1016						0 / 1	0.045	0.023
Aroclor 1221						0 / 1	0.045	0.023
Aroclor 1232						0 / 1	0.045	0.023
Aroclor 1242						0 / 1	0.045	0.023
Aroclor 1248						0 / 1	0.045	0.023
Aroclor 1254						0 / 1	0.045	0.023
Aroclor 1260						0 / 1	0.045	0.023
beta-BHC						0 / 1	0.0091	0.0046
Delta-BHC						0 / 1	0.0091	0.0046
Dieldrin						0 / 1	0.0091	0.0046
Endosulfan I						0 / 1	0.0091	0.0046
Endosulfan II						0 / 1	0.0091	0.0046
Endosulfan Sulfate						0 / 1	0.0091	0.0046
Endrin						0 / 1	0.0091	0.0046
Endrin Aldehyde						0 / 1	0.0091	0.0046
Endrin Ketone						0 / 1	0.0091	0.0046
gamma-BHC (Lindane)						0 / 1	0.0091	0.0046
gamma-Chlordane						0 / 1	0.0091	0.0046
Heptachlor						0 / 1	0.0091	0.0046
Heptachlor Epoxide						0 / 1	0.0091	0.0046
Methoxychlor						0 / 1	0.045	0.023
Toxaphene						0 / 1	0.091	0.046
Metals - ug/L								
Aluminum	2500		2500		SW-MC-01	1 / 1	N/A	2500
Antimony						0 / 1	18.3	9.2
Arsenic	15.7	J	15.7	J	SW-MC-01	1 / 1	N/A	16
Barium	64		64		SW-MC-01	1 / 1	N/A	64
Beryllium						0 / 1	0.22	0.11
Cadmium						0 / 1	0.78	0.39
Calcium	32900		32900		SW-MC-01	1 / 1	N/A	32900
Chromium						0 / 1	9	4.5
Cobalt	7.1	J	7.1	J	SW-MC-01	1 / 1	N/A	7.1
Copper	13.8		13.8		SW-MC-01	1 / 1	N/A	14
Iron	15800		15800		SW-MC-01	1 / 1	N/A	15800
Lead	51.4		51.4		SW-MC-01	1 / 1	N/A	51
Magnesium	5600		5600		SW-MC-01	1 / 1	N/A	5600
Manganese	1960		1960		SW-MC-01	1 / 1	N/A	1960
Mercury						0 / 1	0.087	0.044
Nickel	6.5	J	6.5	J	SW-MC-01	1 / 1	N/A	6.5
Selenium						0 / 1	1.1	0.55
Silver						0 / 1	0.78	0.39
Thallium						0 / 1	1.2	0.60
Vanadium	12	J	12	J	SW-MC-01	1 / 1	N/A	12
Zinc	71.7		71.7		SW-MC-01	1 / 1	N/A	72
Total Organic Carbon (mg/L)	10.3		10.3		SW-MC-01	1 / 1	N/A	10
Total Suspended Solids (mg/L)	64		64		SW-MC-01	1 / 1	N/A	64

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-9
SURFACE WATER DATA SUMMARY - STATION SW-02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 1	2	1.0
1,1,2,2-Tetrachloroethane						0 / 1	2	1.0
1,1,2-Trichloroethane						0 / 1	2	1.0
1,1-Dichloroethane						0 / 1	2	1.0
1,1-Dichloroethene						0 / 1	2	1.0
1,2-Dichloroethane						0 / 1	2	1.0
1,2-Dichloropropane						0 / 1	2	1.0
2-Butanone						0 / 1	2	1.0
2-Hexanone						0 / 1	2	1.0
4-Methyl-2-Pentanone						0 / 1	2	1.0
Acetone						0 / 1	5	2.5
Benzene						0 / 1	2	1.0
Bromodichloromethane						0 / 1	2	1.0
Bromoform						0 / 1	2	1.0
Bromomethane						0 / 1	2	1.0
Carbon disulfide						0 / 1	2	1.0
Carbon tetrachloride						0 / 1	2	1.0
Chlorobenzene						0 / 1	2	1.0
Chloroethane						0 / 1	2	1.0
Chloroform						0 / 1	2	1.0
Chloromethane						0 / 1	2	1.0
cis-1,2-Dichloroethene						0 / 1	2	1.0
cis-1,3-Dichloropropene						0 / 1	2	1.0
Dibromochloromethane						0 / 1	2	1.0
Ethylbenzene						0 / 1	2	1.0
Methylene chloride						0 / 1	5	2.5
o-Xylene						0 / 1	2	1.0
p/m-Xylene						0 / 1	4	2.0
Styrene						0 / 1	2	1.0
Tetrachloroethene						0 / 1	2	1.0
Toluene						0 / 1	2	1.0
trans-1,2-Dichloroethene						0 / 1	2	1.0
trans-1,3-Dichloropropene						0 / 1	2	1.0
Trichloroethene						0 / 1	2	1.0
Vinyl chloride						0 / 1	2	1.0

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TABLE 2-9
SURFACE WATER DATA SUMMARY - STATION SW-02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
1,2-Dichlorobenzene						0 / 1	5	2.5
1,3-Dichlorobenzene						0 / 1	5	2.5
1,4-Dichlorobenzene						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	13	6.5
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	13	6.5
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	13	6.5
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	5	2.5
4,6-Dinitro-2-methylphenol						0 / 1	13	6.5
4-Bromophenyl-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	13	6.5
4-Nitrophenol						0 / 1	13	6.5
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-Chloroethyl)ether						0 / 1	5	2.5
bis(2-chloroisopropyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Carbazole						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenz(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	13	6.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
n-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	13	6.5
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-9
SURFACE WATER DATA SUMMARY - STATION SW-02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.0092	0.0046
4,4'-DDE						0 / 1	0.0092	0.0046
4,4'-DDT						0 / 1	0.0092	0.0046
Aldrin						0 / 1	0.0092	0.0046
alpha-BHC						0 / 1	0.0092	0.0046
alpha-Chlordane						0 / 1	0.0092	0.0046
Aroclor 1016						0 / 1	0.046	0.023
Aroclor 1221						0 / 1	0.046	0.023
Aroclor 1232						0 / 1	0.046	0.023
Aroclor 1242						0 / 1	0.046	0.023
Aroclor 1248						0 / 1	0.046	0.023
Aroclor 1254						0 / 1	0.046	0.023
Aroclor 1260						0 / 1	0.046	0.023
beta-BHC						0 / 1	0.0092	0.0046
Delta-BHC						0 / 1	0.0092	0.0046
Dieldrin						0 / 1	0.0092	0.0046
Endosulfan I						0 / 1	0.0092	0.0046
Endosulfan II						0 / 1	0.0092	0.0046
Endosulfan Sulfate						0 / 1	0.0092	0.0046
Endrin						0 / 1	0.0092	0.0046
Endrin Aldehyde						0 / 1	0.0092	0.0046
Endrin Ketone						0 / 1	0.0092	0.0046
gamma-BHC (Lindane)						0 / 1	0.0092	0.0046
gamma-Chlordane						0 / 1	0.0092	0.0046
Heptachlor						0 / 1	0.0092	0.0046
Heptachlor Epoxide						0 / 1	0.0092	0.0046
Methoxychlor						0 / 1	0.046	0.023
Toxaphene						0 / 1	0.092	0.046
Metals - ug/L								
Aluminum	121		121		SW-MC-02	1 / 1	N/A	121
Antimony						0 / 1	18.3	9.2
Arsenic	1.15	J	1.15	J	SW-MC-02	1 / 1	N/A	1.2
Barium	22.55		22.55		SW-MC-02	1 / 1	N/A	23
Beryllium						0 / 1	0.22	0.11
Cadmium						0 / 1	0.78	0.39
Calcium	33500		33500		SW-MC-02	1 / 1	N/A	33500
Chromium						0 / 1	9	4.5
Cobalt						0 / 1	3	1.5
Copper						0 / 1	1.4	0.70
Iron	3085		3085		SW-MC-02	1 / 1	N/A	3085
Lead	1.15	J	1.15	J	SW-MC-02	1 / 1	N/A	1.2
Magnesium	4305		4305		SW-MC-02	1 / 1	N/A	4305
Manganese	277.5		277.5		SW-MC-02	1 / 1	N/A	278
Mercury						0 / 1	0.04	0.020
Nickel	1.15	J	1.15	J	SW-MC-02	1 / 1	N/A	1.2
Selenium						0 / 1	1.1	0.55
Silver						0 / 1	0.78	0.39
Thallium						0 / 1	1.2	0.60
Vanadium	2.4	J	2.4	J	SW-MC-02	1 / 1	N/A	2.4
Zinc						0 / 1	3.9	2.0
Total Organic Carbon (mg/L)	8.875		8.875		SW-MC-02	1 / 1	N/A	8.9
Total Suspended Solids (mg/L)	2		2		SW-MC-02	1 / 1	N/A	2.0

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-10
SURFACE WATER DATA SUMMARY - STATION SW-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 2	2	1.0
1,1,2,2-Tetrachloroethane						0 / 2	2	1.0
1,1,2-Trichloroethane						0 / 2	2	1.0
1,1-Dichloroethane						0 / 2	2	1.0
1,1-Dichloroethene						0 / 2	2	1.0
1,2-Dichloroethane						0 / 2	2	1.0
1,2-Dichloropropane						0 / 2	2	1.0
2-Butanone						0 / 2	2	1.0
2-Hexanone						0 / 2	2	1.0
4-Methyl-2-Pentanone						0 / 2	2	1.0
Acetone						0 / 2	5	2.5
Benzene						0 / 2	2	1.0
Bromodichloromethane						0 / 2	2	1.0
Bromoform						0 / 2	2	1.0
Bromomethane						0 / 2	2	1.0
Carbon disulfide						0 / 2	2	1.0
Carbon tetrachloride						0 / 2	2	1.0
Chlorobenzene						0 / 2	2	1.0
Chloroethane						0 / 2	2	1.0
Chloroform						0 / 2	2	1.0
Chloromethane						0 / 2	2	1.0
cis-1,2-Dichloroethene						0 / 2	2	1.0
cis-1,3-Dichloropropene						0 / 2	2	1.0
Dibromochloromethane						0 / 2	2	1.0
Ethylbenzene						0 / 2	2	1.0
Methylene chloride						0 / 2	5	2.5
o-Xylene						0 / 2	2	1.0
p/m-Xylene						0 / 2	4	2.0
Styrene						0 / 2	2	1.0
Tetrachloroethene						0 / 2	2	1.0
Toluene						0 / 2	2	1.0
trans-1,2-Dichloroethene						0 / 2	2	1.0
trans-1,3-Dichloropropene						0 / 2	2	1.0
Trichloroethene						0 / 2	2	1.0
Vinyl chloride						0 / 2	2	1.0

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TABLE 2-10
SURFACE WATER DATA SUMMARY - STATION SW-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 2	4	2.0
1,2-Dichlorobenzene						0 / 2	4	2.0
1,3-Dichlorobenzene						0 / 2	4	2.0
1,4-Dichlorobenzene						0 / 2	4	2.0
2,4,5-Trichlorophenol						0 / 2	11	5.5
2,4,6-Trichlorophenol						0 / 2	4	2.0
2,4-Dichlorophenol						0 / 2	4	2.0
2,4-Dimethylphenol						0 / 2	4	2.0
2,4-Dinitrophenol						0 / 2	11	5.5
2,4-Dinitrotoluene						0 / 2	4	2.0
2,6-Dinitrotoluene						0 / 2	4	2.0
2-Chloronaphthalene						0 / 2	4	2.0
2-Chlorophenol						0 / 2	4	2.0
2-Methylnaphthalene						0 / 2	4	2.0
2-Methylphenol						0 / 2	4	2.0
2-Nitroaniline						0 / 2	11	5.5
2-Nitrophenol						0 / 2	4	2.0
3,3'-Dichlorobenzidine						0 / 2	4	2.0
3-Nitroaniline						0 / 2	4	2.0
4,6-Dinitro-2-methylphenol						0 / 2	11	5.5
4-Bromophenyl-phenylether						0 / 2	4	2.0
4-Chloro-3-methylphenol						0 / 2	4	2.0
4-Chloroaniline						0 / 2	4	2.0
4-Chlorophenyl-phenylether						0 / 2	4	2.0
4-Methylphenol						0 / 2	4	2.0
4-Nitroaniline						0 / 2	11	5.5
4-Nitrophenol						0 / 2	11	5.5
Acenaphthene						0 / 2	4	2.0
Acenaphthylene						0 / 2	4	2.0
Anthracene						0 / 2	4	2.0
Benzo(a)anthracene						0 / 2	4	2.0
Benzo(a)pyrene						0 / 2	4	2.0
Benzo(b)fluoranthene						0 / 2	4	2.0
Benzo(g,h,i)perylene						0 / 2	4	2.0
Benzo(k)fluoranthene						0 / 2	4	2.0
bis(2-Chloroethoxy)methane						0 / 2	4	2.0
bis(2-Chloroethyl)ether						0 / 2	4	2.0
bis(2-chloroisopropyl)ether						0 / 2	4	2.0
bis(2-Ethylhexyl)phthalate	3	J	3	J	SW-MC-03-01	1 / 2	4	2.5
Butylbenzylphthalate						0 / 2	4	2.0
Carbazole						0 / 2	4	2.0
Chrysene						0 / 2	4	2.0
Di-n-butylphthalate						0 / 2	4	2.0
Di-n-octyl phthalate						0 / 2	4	2.0
Dibenz(a,h)anthracene						0 / 2	4	2.0
Dibenzofuran						0 / 2	4	2.0
Diethylphthalate						0 / 2	4	2.0
Dimethyl Phthalate						0 / 2	4	2.0
Fluoranthene						0 / 2	4	2.0
Fluorene						0 / 2	4	2.0
Hexachlorobenzene						0 / 2	4	2.0
Hexachlorobutadiene						0 / 2	4	2.0
Hexachlorocyclopentadiene						0 / 2	11	5.5
Hexachloroethane						0 / 2	4	2.0
Indeno(1,2,3-cd)pyrene						0 / 2	4	2.0
Isophorone						0 / 2	4	2.0
N-Nitroso-di-n-propylamine						0 / 2	4	2.0
n-Nitrosodiphenylamine						0 / 2	4	2.0
Naphthalene						0 / 2	4	2.0
Nitrobenzene						0 / 2	4	2.0
Pentachlorophenol						0 / 2	11	5.5
Phenanthrene						0 / 2	4	2.0
Phenol						0 / 2	4	2.0
Pyrene						0 / 2	4	2.0

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TABLE 2-10
SURFACE WATER DATA SUMMARY - STATION SW-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 2	0.0084 - 0.0095	0.0045
4,4'-DDE						0 / 2	0.0084 - 0.0095	0.0045
4,4'-DDT						0 / 2	0.0084 - 0.0095	0.0045
Aldrin						0 / 2	0.0084 - 0.0095	0.0045
alpha-BHC						0 / 2	0.0084 - 0.0095	0.0045
alpha-Chlordane						0 / 2	0.0084 - 0.0095	0.0045
Aroclor 1016						0 / 2	0.042 - 0.048	0.023
Aroclor 1221						0 / 2	0.042 - 0.048	0.023
Aroclor 1232						0 / 2	0.042 - 0.048	0.023
Aroclor 1242						0 / 2	0.042 - 0.048	0.023
Aroclor 1248						0 / 2	0.042 - 0.048	0.023
Aroclor 1254						0 / 2	0.042 - 0.048	0.023
Aroclor 1260						0 / 2	0.042 - 0.048	0.023
beta-BHC						0 / 2	0.0084 - 0.0095	0.0045
Delta-BHC						0 / 2	0.0084 - 0.0095	0.0045
Dieldrin						0 / 2	0.0084 - 0.0095	0.0045
Endosulfan I						0 / 2	0.0084 - 0.0095	0.0045
Endosulfan II						0 / 2	0.0084 - 0.0095	0.0045
Endosulfan Sulfate						0 / 2	0.0084 - 0.0095	0.0045
Endrin						0 / 2	0.0084 - 0.0095	0.0045
Endrin Aldehyde						0 / 2	0.0084 - 0.0095	0.0045
Endrin Ketone						0 / 2	0.0084 - 0.0095	0.0045
gamma-BHC (Lindane)						0 / 2	0.0084 - 0.0095	0.0045
gamma-Chlordane						0 / 2	0.0084 - 0.0095	0.0045
Heptachlor						0 / 2	0.0084 - 0.0095	0.0045
Heptachlor Epoxide						0 / 2	0.0084 - 0.0095	0.0045
Methoxychlor						0 / 2	0.042 - 0.048	0.023
Toxaphene						0 / 2	0.084 - 0.095	0.045
Metals - ug/L								
Aluminum	115		184		SW-MC-03-01	2 / 2	N/A	150
Antimony						0 / 2	18.3	9.2
Arsenic	2.9	J	2.9	J	SW-MC-03	2 / 2	N/A	2.9
Barium	22.5		28.5		SW-MC-03-01	2 / 2	N/A	26
Beryllium						0 / 2	0.22	0.11
Cadmium						0 / 2	0.78	0.39
Calcium	21300		23200		SW-MC-03-01	2 / 2	N/A	22250
Chromium	9	J	9	J	SW-MC-03-01	1 / 2	9	6.8
Cobalt	3	J	3	J	SW-MC-03-01	1 / 2	3	2.3
Copper	2.4	J	2.4	J	SW-MC-03-01	1 / 2	1.4	1.6
Iron	1270		2210		SW-MC-03-01	2 / 2	N/A	1740
Lead	2.7	J	3.2	J	SW-MC-03	2 / 2	N/A	3.0
Magnesium	4140		4440		SW-MC-03-01	2 / 2	N/A	4290
Manganese	159		425		SW-MC-03-01	2 / 2	N/A	292
Mercury						0 / 2	0.04	0.020
Nickel	1.9	J	1.9	J	SW-MC-03	2 / 2	N/A	1.9
Selenium						0 / 2	1.1	0.55
Silver						0 / 2	0.78	0.39
Thallium						0 / 2	1.2	0.60
Vanadium	2.7	J	4.3	J	SW-MC-03-01	2 / 2	N/A	3.5
Zinc	14.7	J	14.7	J	SW-MC-03-01	1 / 2	8.2	9.4
Total Organic Carbon (mg/L)	9.31		9.85		SW-MC-03	2 / 2	N/A	9.6
Total Suspended Solids (mg/L)	2		3		SW-MC-03-01	2 / 2	N/A	2.5

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-11
SURFACE WATER DATA SUMMARY - STATION SW-04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 1	2	1.0
1,1,2,2-Tetrachloroethane						0 / 1	2	1.0
1,1,2-Trichloroethane						0 / 1	2	1.0
1,1-Dichloroethane						0 / 1	2	1.0
1,1-Dichloroethene						0 / 1	2	1.0
1,2-Dichloroethane						0 / 1	2	1.0
1,2-Dichloropropane						0 / 1	2	1.0
2-Butanone						0 / 1	2	1.0
2-Hexanone						0 / 1	2	1.0
4-Methyl-2-Pentanone						0 / 1	2	1.0
Acetone						0 / 1	5	2.5
Benzene						0 / 1	2	1.0
Bromodichloromethane						0 / 1	2	1.0
Bromoform						0 / 1	2	1.0
Bromomethane						0 / 1	2	1.0
Carbon disulfide						0 / 1	2	1.0
Carbon tetrachloride						0 / 1	2	1.0
Chlorobenzene						0 / 1	2	1.0
Chloroethane						0 / 1	2	1.0
Chloroform						0 / 1	2	1.0
Chloromethane						0 / 1	2	1.0
cis-1,2-Dichloroethene						0 / 1	2	1.0
cis-1,3-Dichloropropene						0 / 1	2	1.0
Dibromochloromethane						0 / 1	2	1.0
Ethylbenzene						0 / 1	2	1.0
Methylene chloride						0 / 1	5	2.5
o-Xylene						0 / 1	2	1.0
p/m-Xylene						0 / 1	4	2.0
Styrene						0 / 1	2	1.0
Tetrachloroethene						0 / 1	2	1.0
Toluene						0 / 1	2	1.0
trans-1,2-Dichloroethene						0 / 1	2	1.0
trans-1,3-Dichloropropene						0 / 1	2	1.0
Trichloroethene						0 / 1	2	1.0
Vinyl chloride						0 / 1	2	1.0

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TABLE 2-11
SURFACE WATER DATA SUMMARY - STATION SW-04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	4	2.0
1,2-Dichlorobenzene						0 / 1	4	2.0
1,3-Dichlorobenzene						0 / 1	4	2.0
1,4-Dichlorobenzene						0 / 1	4	2.0
2,4,5-Trichlorophenol						0 / 1	10	5.0
2,4,6-Trichlorophenol						0 / 1	4	2.0
2,4-Dichlorophenol						0 / 1	4	2.0
2,4-Dimethylphenol						0 / 1	4	2.0
2,4-Dinitrophenol						0 / 1	10	5.0
2,4-Dinitrotoluene						0 / 1	4	2.0
2,6-Dinitrotoluene						0 / 1	4	2.0
2-Chloronaphthalene						0 / 1	4	2.0
2-Chlorophenol						0 / 1	4	2.0
2-Methylnaphthalene						0 / 1	4	2.0
2-Methylphenol						0 / 1	4	2.0
2-Nitroaniline						0 / 1	10	5.0
2-Nitrophenol						0 / 1	4	2.0
3,3'-Dichlorobenzidine						0 / 1	4	2.0
3-Nitroaniline						0 / 1	4	2.0
4,6-Dinitro-2-methylphenol						0 / 1	10	5.0
4-Bromophenyl-phenylether						0 / 1	4	2.0
4-Chloro-3-methylphenol						0 / 1	4	2.0
4-Chloroaniline						0 / 1	4	2.0
4-Chlorophenyl-phenylether						0 / 1	4	2.0
4-Methylphenol						0 / 1	4	2.0
4-Nitroaniline						0 / 1	10	5.0
4-Nitrophenol						0 / 1	10	5.0
Acenaphthene						0 / 1	4	2.0
Acenaphthylene						0 / 1	4	2.0
Anthracene						0 / 1	4	2.0
Benzo(a)anthracene						0 / 1	4	2.0
Benzo(a)pyrene						0 / 1	4	2.0
Benzo(b)fluoranthene						0 / 1	4	2.0
Benzo(g,h,i)perylene						0 / 1	4	2.0
Benzo(k)fluoranthene						0 / 1	4	2.0
bis(2-Chloroethoxy)methane						0 / 1	4	2.0
bis(2-Chloroethyl)ether						0 / 1	4	2.0
bis(2-chloroisopropyl)ether						0 / 1	4	2.0
bis(2-Ethylhexyl)phthalate						0 / 1	4	2.0
Butylbenzylphthalate						0 / 1	4	2.0
Carbazole						0 / 1	4	2.0
Chrysene						0 / 1	4	2.0
Di-n-butylphthalate						0 / 1	4	2.0
Di-n-octyl phthalate						0 / 1	4	2.0
Dibenz(a,h)anthracene						0 / 1	4	2.0
Dibenzofuran						0 / 1	4	2.0
Diethylphthalate						0 / 1	4	2.0
Dimethyl Phthalate						0 / 1	4	2.0
Fluoranthene						0 / 1	4	2.0
Fluorene						0 / 1	4	2.0
Hexachlorobenzene						0 / 1	4	2.0
Hexachlorobutadiene						0 / 1	4	2.0
Hexachlorocyclopentadiene						0 / 1	10	5.0
Hexachloroethane						0 / 1	4	2.0
Indeno(1,2,3-cd)pyrene						0 / 1	4	2.0
Isophorone						0 / 1	4	2.0
N-Nitroso-di-n-propylamine						0 / 1	4	2.0
n-Nitrosodiphenylamine						0 / 1	4	2.0
Naphthalene						0 / 1	4	2.0
Nitrobenzene						0 / 1	4	2.0
Pentachlorophenol						0 / 1	10	5.0
Phenanthrene						0 / 1	4	2.0
Phenol						0 / 1	4	2.0
Pyrene						0 / 1	4	2.0

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TABLE 2-11
SURFACE WATER DATA SUMMARY - STATION SW-04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.01	0.0050
4,4'-DDE						0 / 1	0.01	0.0050
4,4'-DDT						0 / 1	0.01	0.0050
Aldrin						0 / 1	0.01	0.0050
alpha-BHC						0 / 1	0.01	0.0050
alpha-Chlordane						0 / 1	0.01	0.0050
Aroclor 1016						0 / 1	0.051	0.026
Aroclor 1221						0 / 1	0.051	0.026
Aroclor 1232						0 / 1	0.051	0.026
Aroclor 1242						0 / 1	0.051	0.026
Aroclor 1248						0 / 1	0.051	0.026
Aroclor 1254						0 / 1	0.051	0.026
Aroclor 1260						0 / 1	0.051	0.026
beta-BHC						0 / 1	0.01	0.0050
Delta-BHC						0 / 1	0.01	0.0050
Dieldrin						0 / 1	0.01	0.0050
Endosulfan I						0 / 1	0.01	0.0050
Endosulfan II						0 / 1	0.01	0.0050
Endosulfan Sulfate						0 / 1	0.01	0.0050
Endrin						0 / 1	0.01	0.0050
Endrin Aldehyde						0 / 1	0.01	0.0050
Endrin Ketone						0 / 1	0.01	0.0050
gamma-BHC (Lindane)						0 / 1	0.01	0.0050
gamma-Chlordane						0 / 1	0.01	0.0050
Heptachlor						0 / 1	0.01	0.0050
Heptachlor Epoxide						0 / 1	0.01	0.0050
Methoxychlor						0 / 1	0.051	0.026
Toxaphene						0 / 1	0.1	0.050
Metals - ug/L								
Aluminum	102		102		SW-MC-04	1 / 1	N/A	102
Antimony						0 / 1	18.3	9.2
Arsenic	1.1	J	1.1	J	SW-MC-04	1 / 1	N/A	1.1
Barium	28		28		SW-MC-04	1 / 1	N/A	28
Beryllium						0 / 1	0.22	0.11
Cadmium						0 / 1	0.78	0.39
Calcium	26300		26300		SW-MC-04	1 / 1	N/A	26300
Chromium						0 / 1	9	4.5
Cobalt						0 / 1	3	1.5
Copper	2.6	J	2.6	J	SW-MC-04	1 / 1	N/A	2.6
Iron	1070		1070		SW-MC-04	1 / 1	N/A	1070
Lead	4	J	4	J	SW-MC-04	1 / 1	N/A	4.0
Magnesium	4910		4910		SW-MC-04	1 / 1	N/A	4910
Manganese	250		250		SW-MC-04	1 / 1	N/A	250
Mercury						0 / 1	0.04	0.020
Nickel	1.3	J	1.3	J	SW-MC-04	1 / 1	N/A	1.3
Selenium	1.6	J	1.6	J	SW-MC-04	1 / 1	N/A	1.6
Silver						0 / 1	0.78	0.39
Thallium						0 / 1	1.2	0.60
Vanadium						0 / 1	2.6	1.3
Zinc						0 / 1	9	4.5
Total Organic Carbon (mg/L)	4.17		4.17		SW-MC-04	1 / 1	N/A	4.2
Total Suspended Solids (mg/L)	2		2		SW-MC-04	1 / 1	N/A	2.0

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-12
SURFACE WATER DATA SUMMARY - STATION SW-12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 1	2	1.0
1,1,2,2-Tetrachloroethane						0 / 1	2	1.0
1,1,2-Trichloroethane						0 / 1	2	1.0
1,1-Dichloroethane						0 / 1	2	1.0
1,1-Dichloroethene						0 / 1	2	1.0
1,2-Dichloroethane						0 / 1	2	1.0
1,2-Dichloropropane						0 / 1	2	1.0
2-Butanone						0 / 1	2	1.0
2-Hexanone						0 / 1	2	1.0
4-Methyl-2-Pentanone						0 / 1	2	1.0
Acetone						0 / 1	5	2.5
Benzene						0 / 1	2	1.0
Bromodichloromethane						0 / 1	2	1.0
Bromoform						0 / 1	2	1.0
Bromomethane						0 / 1	2	1.0
Carbon disulfide						0 / 1	2	1.0
Carbon tetrachloride						0 / 1	2	1.0
Chlorobenzene						0 / 1	2	1.0
Chloroethane						0 / 1	2	1.0
Chloroform						0 / 1	2	1.0
Chloromethane						0 / 1	2	1.0
cis-1,2-Dichloroethene						0 / 1	2	1.0
cis-1,3-Dichloropropene						0 / 1	2	1.0
Dibromochloromethane						0 / 1	2	1.0
Ethylbenzene						0 / 1	2	1.0
Methylene chloride						0 / 1	5	2.5
o-Xylene						0 / 1	2	1.0
p/m-Xylene						0 / 1	4	2.0
Styrene						0 / 1	2	1.0
Tetrachloroethene						0 / 1	2	1.0
Toluene						0 / 1	2	1.0
trans-1,2-Dichloroethene						0 / 1	2	1.0
trans-1,3-Dichloropropene						0 / 1	2	1.0
Trichloroethene						0 / 1	2	1.0
Vinyl chloride						0 / 1	2	1.0

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TABLE 2-12
SURFACE WATER DATA SUMMARY - STATION SW-12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	4	2.0
1,2-Dichlorobenzene						0 / 1	4	2.0
1,3-Dichlorobenzene						0 / 1	4	2.0
1,4-Dichlorobenzene						0 / 1	4	2.0
2,4,5-Trichlorophenol						0 / 1	10	5.0
2,4,6-Trichlorophenol						0 / 1	4	2.0
2,4-Dichlorophenol						0 / 1	4	2.0
2,4-Dimethylphenol						0 / 1	4	2.0
2,4-Dinitrophenol						0 / 1	10	5.0
2,4-Dinitrotoluene						0 / 1	4	2.0
2,6-Dinitrotoluene						0 / 1	4	2.0
2-Chloronaphthalene						0 / 1	4	2.0
2-Chlorophenol						0 / 1	4	2.0
2-Methylnaphthalene						0 / 1	4	2.0
2-Methylphenol						0 / 1	4	2.0
2-Nitroaniline						0 / 1	10	5.0
2-Nitrophenol						0 / 1	4	2.0
3,3'-Dichlorobenzidine						0 / 1	4	2.0
3-Nitroaniline						0 / 1	4	2.0
4,6-Dinitro-2-methylphenol						0 / 1	10	5.0
4-Bromophenyl-phenylether						0 / 1	4	2.0
4-Chloro-3-methylphenol						0 / 1	4	2.0
4-Chloroaniline						0 / 1	4	2.0
4-Chlorophenyl-phenylether						0 / 1	4	2.0
4-Methylphenol						0 / 1	4	2.0
4-Nitroaniline						0 / 1	10	5.0
4-Nitrophenol						0 / 1	10	5.0
Acenaphthene						0 / 1	4	2.0
Acenaphthylene						0 / 1	4	2.0
Anthracene						0 / 1	4	2.0
Benzo(a)anthracene						0 / 1	4	2.0
Benzo(a)pyrene						0 / 1	4	2.0
Benzo(b)fluoranthene						0 / 1	4	2.0
Benzo(g,h,i)perylene						0 / 1	4	2.0
Benzo(k)fluoranthene						0 / 1	4	2.0
bis(2-Chloroethoxy)methane						0 / 1	4	2.0
bis(2-Chloroethyl)ether						0 / 1	4	2.0
bis(2-chloroisopropyl)ether						0 / 1	4	2.0
bis(2-Ethylhexyl)phthalate						0 / 1	4	2.0
Butylbenzylphthalate						0 / 1	4	2.0
Carbazole						0 / 1	4	2.0
Chrysene						0 / 1	4	2.0
Di-n-butylphthalate						0 / 1	4	2.0
Di-n-octyl phthalate						0 / 1	4	2.0
Dibenz(a,h)anthracene						0 / 1	4	2.0
Dibenzofuran						0 / 1	4	2.0
Diethylphthalate						0 / 1	4	2.0
Dimethyl Phthalate						0 / 1	4	2.0
Fluoranthene						0 / 1	4	2.0
Fluorene						0 / 1	4	2.0
Hexachlorobenzene						0 / 1	4	2.0
Hexachlorobutadiene						0 / 1	4	2.0
Hexachlorocyclopentadiene						0 / 1	10	5.0
Hexachloroethane						0 / 1	4	2.0
Indeno(1,2,3-cd)pyrene						0 / 1	4	2.0
Isophorone						0 / 1	4	2.0
N-Nitroso-di-n-propylamine						0 / 1	4	2.0
n-Nitrosodiphenylamine						0 / 1	4	2.0
Naphthalene						0 / 1	4	2.0
Nitrobenzene						0 / 1	4	2.0
Pentachlorophenol						0 / 1	10	5.0
Phenanthrene						0 / 1	4	2.0
Phenol						0 / 1	4	2.0
Pyrene						0 / 1	4	2.0

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TABLE 2-12
SURFACE WATER DATA SUMMARY - STATION SW-12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.0083	0.0042
4,4'-DDE						0 / 1	0.0083	0.0042
4,4'-DDT						0 / 1	0.0083	0.0042
Aldrin						0 / 1	0.0083	0.0042
alpha-BHC						0 / 1	0.0083	0.0042
alpha-Chlordane						0 / 1	0.0083	0.0042
Aroclor 1016						0 / 1	0.042	0.021
Aroclor 1221						0 / 1	0.042	0.021
Aroclor 1232						0 / 1	0.042	0.021
Aroclor 1242						0 / 1	0.042	0.021
Aroclor 1248						0 / 1	0.042	0.021
Aroclor 1254						0 / 1	0.042	0.021
Aroclor 1260						0 / 1	0.042	0.021
beta-BHC						0 / 1	0.0083	0.0042
Delta-BHC						0 / 1	0.0083	0.0042
Dieldrin						0 / 1	0.0083	0.0042
Endosulfan I						0 / 1	0.0083	0.0042
Endosulfan II						0 / 1	0.0083	0.0042
Endosulfan Sulfate						0 / 1	0.0083	0.0042
Endrin						0 / 1	0.0083	0.0042
Endrin Aldehyde						0 / 1	0.0083	0.0042
Endrin Ketone						0 / 1	0.0083	0.0042
gamma-BHC (Lindane)						0 / 1	0.0083	0.0042
gamma-Chlordane						0 / 1	0.0083	0.0042
Heptachlor						0 / 1	0.0083	0.0042
Heptachlor Epoxide						0 / 1	0.0083	0.0042
Methoxychlor						0 / 1	0.042	0.021
Toxaphene						0 / 1	0.083	0.042
Metals - ug/L								
Aluminum	202		202		SW-MC-12	1 / 1	N/A	202
Antimony						0 / 1	18.3	9.2
Arsenic	1.8	J	1.8	J	SW-MC-12	1 / 1	N/A	1.8
Barium	29.8		29.8		SW-MC-12	1 / 1	N/A	30
Beryllium						0 / 1	0.22	0.11
Cadmium						0 / 1	0.78	0.39
Calcium	25800		25800		SW-MC-12	1 / 1	N/A	25800
Chromium						0 / 1	9	4.5
Cobalt						0 / 1	3	1.5
Copper	1.7	J	1.7	J	SW-MC-12	1 / 1	N/A	1.7
Iron	1110		1110		SW-MC-12	1 / 1	N/A	1110
Lead	5.6		5.6		SW-MC-12	1 / 1	N/A	5.6
Magnesium	4710		4710		SW-MC-12	1 / 1	N/A	4710
Manganese	210		210		SW-MC-12	1 / 1	N/A	210
Mercury						0 / 1	0.04	0.020
Nickel						0 / 1	1.2	0.60
Selenium						0 / 1	1.1	0.55
Silver						0 / 1	0.78	0.39
Thallium						0 / 1	1.2	0.60
Vanadium						0 / 1	2.6	1.3
Zinc	21.1	J	21.1	J	SW-MC-12	1 / 1	N/A	21
Total Organic Carbon (mg/L)	3.89		3.89		SW-MC-12	1 / 1	N/A	3.9
Total Suspended Solids (mg/L)	9		9		SW-MC-12	1 / 1	N/A	9.0

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-13
SURFACE WATER DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 5	1	0.50
1,1,1-Trichloroethane						0 / 11	1 - 2	0.77
1,1,2,2-Tetrachloroethane						0 / 11	1 - 2	0.77
1,1,2-Trichloroethane						0 / 11	1 - 2	0.77
1,1-Dichloroethane						0 / 11	1 - 2	0.77
1,1-Dichloroethene						0 / 11	1 - 2	0.77
1,1-Dichloropropene						0 / 5	1	0.50
1,2,3-Trichlorobenzene						0 / 5	1	0.50
1,2,3-Trichloropropane						0 / 5	1	0.50
1,2,4-Trichlorobenzene						0 / 5	1	0.50
1,2,4-Trimethylbenzene						0 / 5	1	0.50
1,2-Dibromo-3-chloropropane						0 / 5	1	0.50
1,2-Dibromoethane						0 / 5	1	0.50
1,2-Dichlorobenzene						0 / 5	1	0.50
1,2-Dichloroethane						0 / 11	1 - 2	0.77
1,2-Dichloropropane						0 / 11	1 - 2	0.77
1,3,5-Trimethylbenzene						0 / 5	1	0.50
1,3-Dichlorobenzene						0 / 5	1	0.50
1,3-Dichloropropane						0 / 5	1	0.50
1,4-Dichlorobenzene						0 / 5	1	0.50
2,2-Dichloropropane						0 / 5	1	0.50
2-Butanone						0 / 11	2 - 5	1.7
2-Chlorotoluene						0 / 5	1	0.50
2-Hexanone						0 / 11	2 - 5	1.7
4-Chlorotoluene						0 / 5	1	0.50
4-Isopropyltoluene						0 / 5	1	0.50
4-Methyl-2-Pentanone						0 / 11	2 - 5	1.7
Acetone						0 / 11	5	2.5
Benzene						0 / 11	1 - 2	0.77
Bromobenzene						0 / 5	1	0.50
Bromochloromethane						0 / 5	1	0.50
Bromodichloromethane						0 / 11	1 - 2	0.77
Bromoform						0 / 11	1 - 2	0.77
Bromomethane						0 / 11	1 - 2	0.77
Carbon Disulfide						0 / 11	1 - 2	0.77
Carbon Tetrachloride						0 / 11	1 - 2	0.77
Chlorobenzene						0 / 11	1 - 2	0.77
Chloroethane						0 / 11	1 - 2	0.77
Chloroform						0 / 11	1 - 2	0.77
Chloromethane						0 / 11	1 - 2	0.77
cis-1,2-Dichloroethene						0 / 11	1 - 2	0.77
cis-1,3-Dichloropropene						0 / 11	1 - 2	0.77
Dibromochloromethane						0 / 11	1 - 2	0.77
Dibromomethane						0 / 5	1	0.50
Dichlorodifluoromethane						0 / 5	1	0.50
Ethylbenzene						0 / 11	1 - 2	0.77
Hexachlorobutadiene						0 / 5	1	0.50
Isopropylbenzene						0 / 5	1	0.50
Methylene Chloride						0 / 11	1 - 5	1.8
n-Butylbenzene						0 / 5	1	0.50
n-Propylbenzene						0 / 5	1	0.50
Naphthalene						0 / 5	1	0.50
o-Xylene						0 / 6	2	1.0
p/m-Xylene						0 / 6	4	2.0
sec-Butylbenzene						0 / 5	1	0.50
Styrene						0 / 11	1 - 2	0.77
tert-Butylbenzene						0 / 5	1	0.50
Tetrachloroethene						0 / 11	1 - 2	0.77
Toluene						0 / 11	1 - 2	0.77
Total Xylenes						0 / 5	1	0.50
Trans-1,2-Dichloroethene						0 / 11	1 - 2	0.77
trans-1,3-Dichloropropene						0 / 11	1 - 2	0.77
Trichloroethene						0 / 11	1 - 2	0.77
Trichlorofluoromethane						0 / 5	1	0.50
Vinyl Chloride						0 / 11	1 - 2	0.77

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TABLE 2-13
SURFACE WATER DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 11	4 - 5	2.3
1,2-Dichlorobenzene						0 / 6	4 - 5	2.2
1,3-Dichlorobenzene						0 / 6	4 - 5	2.2
1,4-Dichlorobenzene						0 / 6	4 - 5	2.2
2,2'-oxybis(1-Chloropropane)						0 / 5	5	2.5
2,4,5-Trichlorophenol						0 / 11	10 - 20	7.6
2,4,6-Trichlorophenol						0 / 11	4 - 5	2.3
2,4-Dichlorophenol						0 / 11	4 - 5	2.3
2,4-Dimethylphenol						0 / 11	4 - 5	2.3
2,4-Dinitrophenol						0 / 11	10 - 20	7.6
2,4-Dinitrotoluene						0 / 11	4 - 5	2.3
2,6-Dinitrotoluene						0 / 11	4 - 5	2.3
2-Chloronaphthalene						0 / 11	4 - 5	2.3
2-Chlorophenol						0 / 11	4 - 5	2.3
2-Methylnaphthalene						0 / 11	4 - 5	2.3
2-Methylphenol						0 / 11	4 - 5	2.3
2-Nitroaniline						0 / 11	10 - 20	7.6
2-Nitrophenol						0 / 11	4 - 5	2.3
3,3'-Dichlorobenzidine						0 / 10	4 - 5	2.3
3-Nitroaniline						0 / 11	4 - 20	5.7
4,6-Dinitro-2-methylphenol						0 / 11	10 - 20	7.6
4-Bromophenol-phenylether						0 / 5	5	2.5
4-Bromophenyl-phenylether						0 / 6	4 - 5	2.2
4-Chloro-3-methylphenol						0 / 11	4 - 5	2.3
4-Chloroaniline						0 / 11	4 - 5	2.3
4-Chlorophenyl-phenylether						0 / 11	4 - 5	2.3
4-Methylphenol						0 / 11	4 - 5	2.3
4-Nitroaniline						0 / 11	10 - 20	7.6
4-Nitrophenol						0 / 9	10 - 20	7.1
Acenaphthene						0 / 11	4 - 5	2.3
Acenaphthylene						0 / 11	4 - 5	2.3
Anthracene						0 / 11	4 - 5	2.3
Benzo(a)anthracene						0 / 11	4 - 5	2.3
Benzo(a)pyrene						0 / 11	4 - 5	2.3
Benzo(b)fluoranthene						0 / 11	4 - 5	2.3
Benzo(g,h,i)perylene						0 / 11	4 - 5	2.3
Benzo(k)fluoranthene						0 / 11	4 - 5	2.3
bis(2-Chloroethoxy)methane						0 / 11	4 - 5	2.3
bis(2-chloroethyl)ether						0 / 11	4 - 5	2.3
bis(2-chloroisopropyl)ether						0 / 6	4 - 5	2.2
bis(2-Ethylhexyl)phthalate	3	J	3	J	SW-MC-03-01	1 / 11	4 - 5	2.4
Butylbenzylphthalate						0 / 11	4 - 5	2.3
Carbazole						0 / 6	4 - 5	2.2
Chrysene						0 / 11	4 - 5	2.3
Di-n-butylphthalate						0 / 11	4 - 5	2.3
Di-n-octyl phthalate						0 / 11	4 - 5	2.3
Dibenz(a,h)anthracene						0 / 6	4 - 5	2.2
Dibenzo(a,h)anthracene						0 / 5	5	2.5
Dibenzofuran						0 / 11	4 - 5	2.3
Diethylphthalate						0 / 11	4 - 5	2.3
Dimethyl Phthalate						0 / 11	4 - 5	2.3
Fluoranthene						0 / 11	4 - 5	2.3
Fluorene						0 / 11	4 - 5	2.3
Hexachlorobenzene						0 / 11	4 - 5	2.3
Hexachlorobutadiene						0 / 11	4 - 5	2.3
Hexachlorocyclopentadiene						0 / 11	5 - 13	4.2
Hexachloroethane						0 / 11	4 - 5	2.3
Indeno(1,2,3-cd)pyrene						0 / 11	4 - 5	2.3
Isophorone						0 / 11	4 - 5	2.3
N-Nitroso-di-n-propylamine						0 / 11	4 - 5	2.3

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TABLE 2-13
SURFACE WATER DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
N-Nitrosodiphenylamine						0 / 11	4 - 5	2.3
Naphthalene						0 / 11	4 - 5	2.3
Nitrobenzene						0 / 11	4 - 5	2.3
Pentachlorophenol						0 / 10	10 - 20	7.4
Phenanthrene						0 / 11	4 - 5	2.3
Phenol						0 / 11	4 - 5	2.3
Pyrene						0 / 11	4 - 5	2.3
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 11	0.0083 - 0.1	0.025
4,4'-DDE						0 / 11	0.0083 - 0.1	0.025
4,4'-DDT						0 / 11	0.0083 - 0.1	0.025
Aldrin						0 / 11	0.0083 - 0.05	0.014
alpha-BHC						0 / 11	0.0083 - 0.05	0.014
alpha-Chlordane						0 / 11	0.0083 - 0.05	0.014
Aroclor 1016						0 / 11	0.042 - 1	0.24
Aroclor 1221						0 / 11	0.042 - 2	0.47
Aroclor 1232						0 / 11	0.042 - 1	0.24
Aroclor 1242						0 / 11	0.042 - 1	0.24
Aroclor 1248						0 / 11	0.042 - 1	0.24
Aroclor 1254						0 / 11	0.042 - 1	0.24
Aroclor 1260						0 / 11	0.042 - 1	0.24
beta-BHC						0 / 11	0.0083 - 0.05	0.014
delta-BHC						0 / 11	0.0083 - 0.05	0.014
Dieldrin						0 / 11	0.0083 - 0.1	0.025
Endosulfan I						0 / 11	0.0083 - 0.05	0.014
Endosulfan II						0 / 11	0.0083 - 0.1	0.025
Endosulfan sulfate						0 / 11	0.0083 - 0.1	0.025
Endrin						0 / 11	0.0083 - 0.1	0.025
Endrin aldehyde						0 / 11	0.0083 - 0.1	0.025
Endrin ketone						0 / 11	0.0083 - 0.1	0.025
gamma-BHC (Lindane)						0 / 11	0.0083 - 0.05	0.014
gamma-Chlordane	0.0017	J	0.0017	J	SW-24-01	1 / 11	0.0083 - 0.05	0.012
Heptachlor						0 / 11	0.0083 - 0.05	0.014
Heptachlor epoxide						0 / 11	0.0083 - 0.05	0.014
Methoxychlor						0 / 11	0.042 - 0.5	0.13
Toxaphene						0 / 11	0.083 - 5	1.2
Metals - ug/L								
Aluminum	21.3		2500		SW-MC-01	9 / 11	23.5 - 29.2	315
Antimony						0 / 11	1.1 - 18.3	5.2
Arsenic	1.1	J	15.7	J	SW-MC-01	8 / 11	1 - 1.7	3.1
Barium	15.4		64		SW-MC-01	11 / 11	N/A	31
Beryllium						0 / 11	0.099 - 0.22	0.083
Cadmium						0 / 11	0.15 - 0.78	0.25
Calcium	17700		37000		SW-24-01	11 / 11	N/A	25914
Chromium	0.34		9	J	SW-MC-01	4 / 11	0.25 - 9	3.0
Cobalt	3	J	7.1	J	SW-MC-01	2 / 11	0.5 - 3	1.6
Copper	0.45		13.8		SW-MC-01	8 / 11	0.35 - 1.4	2.6
Cyanide						0 / 5	5	2.5
Iron	118		15800		SW-MC-01	11 / 11	N/A	2671
Lead	0.665	J	51.4		SW-MC-01	8 / 11	0.75	6.9
Magnesium	2050		5950		SW-24-01	11 / 11	N/A	4487
Manganese	46.4		1960		SW-MC-01	11 / 11	N/A	451
Mercury	0.097		0.13		SW-24-01	4 / 11	0.04 - 0.087	0.058
Nickel	0.66		6.5	J	SW-MC-01	9 / 11	0.5 - 1.2	1.6
Potassium	1080		6260		SW-24-01	5 / 5	N/A	4118
Selenium	1.6	J	1.6	J	SW-MC-04	1 / 11	1.1 - 1.9	0.81
Silver						0 / 11	0.4 - 0.78	0.30
Sodium	42200		88300		SW-26-01	5 / 5	N/A	59100
Thallium						0 / 11	1.2 - 1.5	0.67
Vanadium	0.85		12	J	SW-MC-01	6 / 11	0.55 - 2.6	2.4
Zinc	1.375	J	71.7		SW-MC-01	7 / 11	1.6 - 9	13

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TABLE 2-13
SURFACE WATER DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Organic Carbon (mg/L)	3.89		10.3		SW-MC-01	6 / 6	N/A	7.7
Total Suspended Solids (mg/L)	1		64		SW-MC-01	11 / 11	N/A	11
Dissolved Organic Carbon (mg/L)	4.6		8.2		SW-23-01	5 / 5	N/A	6.1
Total Dissolved Solids (mg/L)	205		398		SW-24-01	5 / 5	N/A	281
Alkalinity (as CaCO3) (mg/L)	21		53		SW-24-01	5 / 5	N/A	42
Chloride (mg/L)	75.4		166		SW-26-01	5 / 5	N/A	105
Nitrate/Nitrite Nitrogen (mg/L)	0.01		0.38		SW-27-01	5 / 5	N/A	0.12
Sulfate (mg/L)	10		73		SW-24-01	5 / 5	N/A	29

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-14
SURFACE WATER DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SW-MC-01	SW-MC-02	SW-MC-03	SW-MC-03-01	SW-MC-04	SW-MC-12	SW-23-01	SW-24-01	SW-25-01
VOCs (ug/L)									
No Detections									
SVOCs (ug/L)									
bis(2-Ethylhexyl)phthalate	5 U	5 U	4 U	3 J	4 U	4 U	5 U	5 U	5 U
PCB/Pesticides (ug/L)									
gamma-Chlordane	0.0091 U	0.0092 U	0.0095 U	0.0084 U	0.01 U	0.0083 U	0.05 U	0.0017 J	0.05 UJ
Metals (ug/L)									
Aluminum	2500	121	115	184	102	202	23.5 U	142	47.15
Arsenic	15.7 J	1.15 J	2.9 J	2.9 J	1.1 J	1.8 J	2.9	3.2	1.4 UJ
Barium	64	22.55	22.5	28.5	28	29.8	20.3	45.1	24.55
Calcium	32900	33500	21300	23200	26300	25800	24300	37000	23350
Chromium	9 U	9 U	9 U	9 J	9 U	9 U	0.47	0.88	0.25 U
Cobalt	7.1 J	3 U	3 U	3 J	3 U	3 U	0.5 U	0.5 U	0.5 U
Copper	13.8	1.4 U	1.4 U	2.4 J	2.6 J	1.7 J	0.35 U	3.9	1
Iron	15800	3085	1270	2210	1070	1110	1470	2780	118
Lead	51.4	1.15 J	3.2 J	2.7 J	4 J	5.6	0.75 U	6.3	0.665 J
Magnesium	5600	4305	4140	4440	4910	4710	5150	5950	3825
Manganese	1960	277.5	159	425	250	210	780	520	46.4
Mercury	0.087 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.11	0.13	.115
Nickel	6.5 J	1.15 J	1.9 J	1.9 J	1.3 J	1.2 U	0.66	1.8	.78
Potassium	NA	NA	NA	NA	NA	NA	4920	6260	4230
Selenium	1.1 U	1.1 U	1.1 U	1.1 U	1.6 J	1.1 U	1.8 U	1.9 U	1.8 U
Sodium	NA	NA	NA	NA	NA	NA	48800	69100	47100
Vanadium	12 J	2.4 J	2.7 J	4.3 J	2.6 U	2.6 U	0.89	0.55 U	.85
Zinc	71.7	3.9 U	8.2 U	14.7 J	9 U	21.1 J	2.2 J	16.1 J	1.375 J
Total Organic Carbon (mg/L)	10.3	8.875	9.85	9.31	4.17	3.89	NA	NA	NA
Total Suspended Solids (mg/L)	64	2	2	3	2	9	5.9	28	3.65
Dissolved Organic Carbon (mg/L)	NA	NA	NA	NA	NA	NA	8.2	7.8	5.35
Total Dissolved Solids (mg/L)	NA	NA	NA	NA	NA	NA	292	398	205
Alkalinity (as $CaCO_3$) (mg/L)	NA	NA	NA	NA	NA	NA	52	53	43.5
Chloride (mg/L)	NA	NA	NA	NA	NA	NA	88.6	114	80.55
Nitrate/Nitrite Nitrogen (mg/L)	NA	NA	NA	NA	NA	NA	0.08	0.12	.015
Sulfate (mg/L)	NA	NA	NA	NA	NA	NA	18	73	23
Hardness (as $CaCO_3$) (mg/L) calc.	105	101	70	76	86	84	82	117	74

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TABLE 2-14
SURFACE WATER DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SW-26-01	SW-27-01
VOCs (ug/L)		
No Detections		
SVOCs (ug/L)		
bis(2-Ethylhexyl)phthalate	5 U	5 U
PCB/Pesticides (ug/L)		
gamma-Chlordane	0.05 U	0.05 U
Metals (ug/L)		
Aluminum	29.2 U	21.3
Arsenic	1 U	1.7 UJ
Barium	40.5	15.4
Calcium	17700	19700
Chromium	0.25 U	0.34
Cobalt	0.5 U	0.5 U
Copper	1.4	0.45
Iron	221	251
Lead	0.75 U	0.75 U
Magnesium	2050	4280
Manganese	285	47.5
Mercury	0.08 U	0.097
Nickel	0.5 U	0.75
Potassium	1080	4100
Selenium	1.8 U	1.8 U
Sodium	88300	42200
Vanadium	0.55 U	0.55 U
Zinc	2.7 J	1.6 UJ
Total Organic Carbon (mg/L)	NA	NA
Total Suspended Solids (mg/L)	1.8	1
Dissolved Organic Carbon (mg/L)	4.6	4.6
Total Dissolved Solids (mg/L)	302	208
Alkalinity (as $CaCO_3$) (mg/L)	21	38
Chloride (mg/L)	166	75.4
Nitrate/Nitrite Nitrogen (mg/L)	0.01	0.38
Sulfate (mg/L)	10	21
Hardness (as $CaCO_3$) (mg/L) calc.	53	67

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TABLE 2-15
SURFACE WATER DATA SUMMARY - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-15
SURFACE WATER DATA SUMMARY - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-15
SURFACE WATER DATA SUMMARY - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	426		426		SW-01-01	1 / 1	N/A	426
Antimony						0 / 1	1.2	0.60
Arsenic	3.1		3.1		SW-01-01	1 / 1	N/A	3.1
Barium	29.6		29.6		SW-01-01	1 / 1	N/A	30
Beryllium						0 / 1	0.035	0.018
Cadmium						0 / 1	0.099	0.050
Calcium	28100		28100		SW-01-01	1 / 1	N/A	28100
Chromium	1.5		1.5		SW-01-01	1 / 1	N/A	1.5
Cobalt	0.43		0.43		SW-01-01	1 / 1	N/A	0.43
Copper	6.8		6.8		SW-01-01	1 / 1	N/A	6.8
Cyanide						0 / 1	5	2.5
Iron	703		703		SW-01-01	1 / 1	N/A	703
Lead	4.1	J	4.1	J	SW-01-01	1 / 1	N/A	4.1
Magnesium	5030		5030		SW-01-01	1 / 1	N/A	5030
Manganese	70.9		70.9		SW-01-01	1 / 1	N/A	71
Mercury	0.04	J	0.04	J	SW-01-01	1 / 1	N/A	0.040
Nickel	2		2		SW-01-01	1 / 1	N/A	2.0
Potassium	4160	J	4160	J	SW-01-01	1 / 1	N/A	4160
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.74	0.37
Sodium	62600		62600		SW-01-01	1 / 1	N/A	62600
Thallium						0 / 1	1.7	0.85
Vanadium	1.3		1.3		SW-01-01	1 / 1	N/A	1.3
Zinc	45.5		45.5		SW-01-01	1 / 1	N/A	46
Total Suspended Solids (mg/L)	3		3		SW-01-01	1 / 1	N/A	3.0
Dissolved Organic Carbon (mg/L)	6.8		6.8		SW-01-01	1 / 1	N/A	6.8
Total Dissolved Solids (mg/L)	935		935		SW-01-01	1 / 1	N/A	935
Alkalinity (as CaCO3) (mg/L)	51		51		SW-01-01	1 / 1	N/A	51
Chloride (mg/L)	95.4		95.4		SW-01-01	1 / 1	N/A	95
Nitrate/Nitrite Nitrogen (mg/L)	1.1		1.1		SW-01-01	1 / 1	N/A	1.1
Sulfate (mg/L)	40		40		SW-01-01	1 / 1	N/A	40

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-16
SURFACE WATER DATA SUMMARY - STATION 02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	3	1.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-16
SURFACE WATER DATA SUMMARY - STATION 02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-16
SURFACE WATER DATA SUMMARY - STATION 02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	50.4		50.4		SW-02-01	1 / 1	N/A	50
Antimony						0 / 1	1.2	0.60
Arsenic	2.8		2.8		SW-02-01	1 / 1	N/A	2.8
Barium	34.5		34.5		SW-02-01	1 / 1	N/A	35
Beryllium						0 / 1	0.035	0.018
Cadmium						0 / 1	0.1	0.050
Calcium	28800		28800		SW-02-01	1 / 1	N/A	28800
Chromium	0.72		0.72		SW-02-01	1 / 1	N/A	0.72
Cobalt						0 / 1	0.4	0.20
Copper	2.2		2.2		SW-02-01	1 / 1	N/A	2.2
Cyanide						0 / 1	5	2.5
Iron	304		304		SW-02-01	1 / 1	N/A	304
Lead						0 / 1	0.85	0.43
Magnesium	5060		5060		SW-02-01	1 / 1	N/A	5060
Manganese	97.4		97.4		SW-02-01	1 / 1	N/A	97
Mercury	0.062	J	0.062	J	SW-02-01	1 / 1	N/A	0.062
Nickel	0.89		0.89		SW-02-01	1 / 1	N/A	0.89
Potassium	4070	J	4070	J	SW-02-01	1 / 1	N/A	4070
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	58900		58900		SW-02-01	1 / 1	N/A	58900
Thallium						0 / 1	1.7	0.85
Vanadium	0.58		0.58		SW-02-01	1 / 1	N/A	0.58
Zinc						0 / 1	4	2.0
Total Suspended Solids (mg/L)	4.7		4.7		SW-02-01	1 / 1	N/A	4.7
Dissolved Organic Carbon (mg/L)	7.1		7.1		SW-02-01	1 / 1	N/A	7.1
Total Dissolved Solids (mg/L)	268		268		SW-02-01	1 / 1	N/A	268
Alkalinity (as CaCO3) (mg/L)	50		50		SW-02-01	1 / 1	N/A	50
Chloride (mg/L)	85.1		85.1		SW-02-01	1 / 1	N/A	85
Nitrate/Nitrite Nitrogen (mg/L)	0.89		0.89		SW-02-01	1 / 1	N/A	0.89
Sulfate (mg/L)	35		35		SW-02-01	1 / 1	N/A	35

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-17
SURFACE WATER DATA SUMMARY - STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	16	8.0
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-17
SURFACE WATER DATA SUMMARY - STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-17
SURFACE WATER DATA SUMMARY - STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	298		298		SW-03-01	1 / 1	N/A	298
Antimony						0 / 1	1.2	0.60
Arsenic	5.2		5.2		SW-03-01	1 / 1	N/A	5.2
Barium	41.9		41.9		SW-03-01	1 / 1	N/A	42
Beryllium						0 / 1	0.035	0.018
Cadmium						0 / 1	0.099	0.050
Calcium	28900		28900		SW-03-01	1 / 1	N/A	28900
Chromium	3.7		3.7		SW-03-01	1 / 1	N/A	3.7
Cobalt						0 / 1	0.4	0.20
Copper	6		6		SW-03-01	1 / 1	N/A	6.0
Cyanide						0 / 1	5	2.5
Iron	1080		1080		SW-03-01	1 / 1	N/A	1080
Lead	7.5	J	7.5	J	SW-03-01	1 / 1	N/A	7.5
Magnesium	5120		5120		SW-03-01	1 / 1	N/A	5120
Manganese	221		221		SW-03-01	1 / 1	N/A	221
Mercury	0.069	J	0.069	J	SW-03-01	1 / 1	N/A	0.069
Nickel	1.5		1.5		SW-03-01	1 / 1	N/A	1.5
Potassium	4070	J	4070	J	SW-03-01	1 / 1	N/A	4070
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	49000		49000		SW-03-01	1 / 1	N/A	49000
Thallium						0 / 1	1.7	0.85
Vanadium	1.3		1.3		SW-03-01	1 / 1	N/A	1.3
Zinc	29.4		29.4		SW-03-01	1 / 1	N/A	29
Total Suspended Solids (mg/L)	9.1		9.1		SW-03-01	1 / 1	N/A	9.1
Dissolved Organic Carbon (mg/L)	8		8		SW-03-01	1 / 1	N/A	8.0
Total Dissolved Solids (mg/L)	249		249		SW-03-01	1 / 1	N/A	249
Alkalinity (as CaCO3) (mg/L)	52		52		SW-03-01	1 / 1	N/A	52
Chloride (mg/L)	78.9		78.9		SW-03-01	1 / 1	N/A	79
Nitrate/Nitrite Nitrogen (mg/L)	0.9		0.9		SW-03-01	1 / 1	N/A	0.90
Sulfate (mg/L)	54		54		SW-03-01	1 / 1	N/A	54

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-18
SURFACE WATER DATA SUMMARY - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	3	1.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-18
SURFACE WATER DATA SUMMARY - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-18
SURFACE WATER DATA SUMMARY - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	47.7		47.7		SW-04-01	1 / 1	N/A	48
Antimony						0 / 1	1.2	0.60
Arsenic						0 / 1	6.5	3.3
Barium	44.4		44.4		SW-04-01	1 / 1	N/A	44
Beryllium	0.11		0.11		SW-04-01	1 / 1	N/A	0.11
Cadmium						0 / 1	0.099	0.050
Calcium	32600		32600		SW-04-01	1 / 1	N/A	32600
Chromium	0.75		0.75		SW-04-01	1 / 1	N/A	0.75
Cobalt						0 / 1	0.4	0.20
Copper	2.5		2.5		SW-04-01	1 / 1	N/A	2.5
Cyanide						0 / 1	5	2.5
Iron	544		544		SW-04-01	1 / 1	N/A	544
Lead	1.7		1.7		SW-04-01	1 / 1	N/A	1.7
Magnesium	5710		5710		SW-04-01	1 / 1	N/A	5710
Manganese	317		317		SW-04-01	1 / 1	N/A	317
Mercury						0 / 1	0.2	0.10
Nickel	1.1		1.1		SW-04-01	1 / 1	N/A	1.1
Potassium	3850		3850		SW-04-01	1 / 1	N/A	3850
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.74	0.37
Sodium	51200		51200		SW-04-01	1 / 1	N/A	51200
Thallium						0 / 1	1.7	0.85
Vanadium						0 / 1	0.55	0.28
Zinc	12.4		12.4		SW-04-01	1 / 1	N/A	12
Total Suspended Solids (mg/L)	12		12		SW-04-01	1 / 1	N/A	12
Dissolved Organic Carbon (mg/L)	7.1		7.1		SW-04-01	1 / 1	N/A	7.1
Total Dissolved Solids (mg/L)	467		467		SW-04-01	1 / 1	N/A	467
Alkalinity (as CaCO3) (mg/L)	53		53		SW-04-01	1 / 1	N/A	53
Chloride (mg/L)	86.9		86.9		SW-04-01	1 / 1	N/A	87
Nitrate/Nitrite Nitrogen (mg/L)	0.62		0.62		SW-04-01	1 / 1	N/A	0.62
Sulfate (mg/L)	49		49		SW-04-01	1 / 1	N/A	49

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-19
SURFACE WATER DATA SUMMARY - STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform	1	J	1	J	SW-05-01	1 / 1	N/A	1.0
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	3	1.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene	2		2		SW-05-01	1 / 1	N/A	2.0
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-19
SURFACE WATER DATA SUMMARY - STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-19
SURFACE WATER DATA SUMMARY - STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	27.3		27.3		SW-05-01	1 / 1	N/A	27
Antimony						0 / 1	1.2	0.60
Arsenic						0 / 1	3.4	1.7
Barium	50.3		50.3		SW-05-01	1 / 1	N/A	50
Beryllium						0 / 1	0.059	0.030
Cadmium						0 / 1	0.099	0.050
Calcium	41800		41800		SW-05-01	1 / 1	N/A	41800
Chromium	0.85		0.85		SW-05-01	1 / 1	N/A	0.85
Cobalt						0 / 1	0.4	0.20
Copper	1.7		1.7		SW-05-01	1 / 1	N/A	1.7
Cyanide						0 / 1	5	2.5
Iron	376		376		SW-05-01	1 / 1	N/A	376
Lead						0 / 1	0.84	0.42
Magnesium	7290		7290		SW-05-01	1 / 1	N/A	7290
Manganese	320		320		SW-05-01	1 / 1	N/A	320
Mercury						0 / 1	0.2	0.10
Nickel	1.3		1.3		SW-05-01	1 / 1	N/A	1.3
Potassium	4560		4560		SW-05-01	1 / 1	N/A	4560
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.74	0.37
Sodium	65900		65900		SW-05-01	1 / 1	N/A	65900
Thallium						0 / 1	1.7	0.85
Vanadium	0.68		0.68		SW-05-01	1 / 1	N/A	0.68
Zinc	10.8		10.8		SW-05-01	1 / 1	N/A	11
Total Suspended Solids (mg/L)	2.6		2.6		SW-05-01	1 / 1	N/A	2.6
Dissolved Organic Carbon (mg/L)	5.7		5.7		SW-05-01	1 / 1	N/A	5.7
Total Dissolved Solids (mg/L)	340		340		SW-05-01	1 / 1	N/A	340
Alkalinity (as CaCO3) (mg/L)	71		71		SW-05-01	1 / 1	N/A	71
Chloride (mg/L)	111		111		SW-05-01	1 / 1	N/A	111
Nitrate/Nitrite Nitrogen (mg/L)	2.1		2.1		SW-05-01	1 / 1	N/A	2.1
Sulfate (mg/L)	48		48		SW-05-01	1 / 1	N/A	48

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-20
SURFACE WATER DATA SUMMARY - STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	5	2.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-20
SURFACE WATER DATA SUMMARY - STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-20
SURFACE WATER DATA SUMMARY - STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	199		199		SW-06-01	1 / 1	N/A	199
Antimony						0 / 1	1.2	0.60
Arsenic						0 / 1	6.5	3.3
Barium	32		32		SW-06-01	1 / 1	N/A	32
Beryllium						0 / 1	0.097	0.049
Cadmium						0 / 1	0.099	0.050
Calcium	42500		42500		SW-06-01	1 / 1	N/A	42500
Chromium	4.3		4.3		SW-06-01	1 / 1	N/A	4.3
Cobalt						0 / 1	0.88	0.44
Copper	5.2		5.2		SW-06-01	1 / 1	N/A	5.2
Cyanide						0 / 1	5	2.5
Iron	1180		1180		SW-06-01	1 / 1	N/A	1180
Lead	5.7		5.7		SW-06-01	1 / 1	N/A	5.7
Magnesium	6830		6830		SW-06-01	1 / 1	N/A	6830
Manganese	504		504		SW-06-01	1 / 1	N/A	504
Mercury						0 / 1	0.2	0.10
Nickel	1.9		1.9		SW-06-01	1 / 1	N/A	1.9
Potassium	5180		5180		SW-06-01	1 / 1	N/A	5180
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	59800		59800		SW-06-01	1 / 1	N/A	59800
Thallium						0 / 1	1.7	0.85
Vanadium	1.5		1.5		SW-06-01	1 / 1	N/A	1.5
Zinc	29.8		29.8		SW-06-01	1 / 1	N/A	30
Total Suspended Solids (mg/L)	8.1		8.1		SW-06-01	1 / 1	N/A	8.1
Dissolved Organic Carbon (mg/L)	6		6		SW-06-01	1 / 1	N/A	6.0
Total Dissolved Solids (mg/L)	338		338		SW-06-01	1 / 1	N/A	338
Alkalinity (as CaCO3) (mg/L)	67		67		SW-06-01	1 / 1	N/A	67
Chloride (mg/L)	102		102		SW-06-01	1 / 1	N/A	102
Nitrate/Nitrite Nitrogen (mg/L)	2.2		2.2		SW-06-01	1 / 1	N/A	2.2
Sulfate (mg/L)	70		70		SW-06-01	1 / 1	N/A	70

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-21
SURFACE WATER DATA SUMMARY - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	5	2.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-21
SURFACE WATER DATA SUMMARY - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-21
SURFACE WATER DATA SUMMARY - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	129		129		SW-07-01	1 / 1	N/A	129
Antimony	1.3		1.3		SW-07-01	1 / 1	N/A	1.3
Arsenic						0 / 1	13.9	7.0
Barium	33.9		33.9		SW-07-01	1 / 1	N/A	34
Beryllium						0 / 1	0.1	0.050
Cadmium						0 / 1	0.099	0.050
Calcium	45300		45300		SW-07-01	1 / 1	N/A	45300
Chromium	3.1		3.1		SW-07-01	1 / 1	N/A	3.1
Cobalt						0 / 1	0.96	0.48
Copper	3.6		3.6		SW-07-01	1 / 1	N/A	3.6
Cyanide						0 / 1	5	2.5
Iron	1920		1920		SW-07-01	1 / 1	N/A	1920
Lead	4.3		4.3		SW-07-01	1 / 1	N/A	4.3
Magnesium	7400		7400		SW-07-01	1 / 1	N/A	7400
Manganese	585		585		SW-07-01	1 / 1	N/A	585
Mercury	0.22	J	0.22	J	SW-07-01	1 / 1	N/A	0.22
Nickel	1.7		1.7		SW-07-01	1 / 1	N/A	1.7
Potassium	5050		5050		SW-07-01	1 / 1	N/A	5050
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.74	0.37
Sodium	54500		54500		SW-07-01	1 / 1	N/A	54500
Thallium						0 / 1	1.7	0.85
Vanadium	1.9		1.9		SW-07-01	1 / 1	N/A	1.9
Zinc	18.9		18.9		SW-07-01	1 / 1	N/A	19
Total Suspended Solids (mg/L)	11.8		11.8		SW-07-01	1 / 1	N/A	12
Dissolved Organic Carbon (mg/L)	7.6		7.6		SW-07-01	1 / 1	N/A	7.6
Total Dissolved Solids (mg/L)	358		358		SW-07-01	1 / 1	N/A	358
Alkalinity (as CaCO3) (mg/L)	59		59		SW-07-01	1 / 1	N/A	59
Chloride (mg/L)	97.8		97.8		SW-07-01	1 / 1	N/A	98
Nitrate/Nitrite Nitrogen (mg/L)	2.9		2.9		SW-07-01	1 / 1	N/A	2.9
Sulfate (mg/L)	88		88		SW-07-01	1 / 1	N/A	88

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-22
SURFACE WATER DATA SUMMARY - STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-22
SURFACE WATER DATA SUMMARY - STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-22
SURFACE WATER DATA SUMMARY - STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	40.2		40.2		SW-08-01	1 / 1	N/A	40
Antimony						0 / 1	1.2	0.60
Arsenic	6.8		6.8		SW-08-01	1 / 1	N/A	6.8
Barium	29.2		29.2		SW-08-01	1 / 1	N/A	29
Beryllium						0 / 1	0.095	0.048
Cadmium						0 / 1	1.4	0.70
Calcium	49200		49200		SW-08-01	1 / 1	N/A	49200
Chromium	2.2		2.2		SW-08-01	1 / 1	N/A	2.2
Cobalt						0 / 1	0.61	0.31
Copper	3.3		3.3		SW-08-01	1 / 1	N/A	3.3
Cyanide						0 / 1	5	2.5
Iron	693		693		SW-08-01	1 / 1	N/A	693
Lead						0 / 1	0.85	0.43
Magnesium	8040		8040		SW-08-01	1 / 1	N/A	8040
Manganese	356	J	356	J	SW-08-01	1 / 1	N/A	356
Mercury						0 / 1	0.2	0.10
Nickel	1.3		1.3		SW-08-01	1 / 1	N/A	1.3
Potassium	5240		5240		SW-08-01	1 / 1	N/A	5240
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	58800		58800		SW-08-01	1 / 1	N/A	58800
Thallium						0 / 1	1.7	0.85
Vanadium						0 / 1	1.1	0.55
Zinc	37.7		37.7		SW-08-01	1 / 1	N/A	38
Total Suspended Solids (mg/L)	3.4		3.4		SW-08-01	1 / 1	N/A	3.4
Dissolved Organic Carbon (mg/L)	4.9		4.9		SW-08-01	1 / 1	N/A	4.9
Total Dissolved Solids (mg/L)	219		219		SW-08-01	1 / 1	N/A	219
Alkalinity (as CaCO3) (mg/L)	49		49		SW-08-01	1 / 1	N/A	49
Chloride (mg/L)	99.5		99.5		SW-08-01	1 / 1	N/A	100
Nitrate/Nitrite Nitrogen (mg/L)	5.1		5.1		SW-08-01	1 / 1	N/A	5.1
Sulfate (mg/L)	87		87		SW-08-01	1 / 1	N/A	87

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-23
SURFACE WATER DATA SUMMARY - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene	3		3		SW-09-01	1 / 1	N/A	3.0
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	2	1.0
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene	2		2		SW-09-01	1 / 1	N/A	2.0
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-23
SURFACE WATER DATA SUMMARY - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-23
SURFACE WATER DATA SUMMARY - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	55.3		55.3		SW-09-01	1 / 1	N/A	55
Antimony						0 / 1	1.2	0.60
Arsenic	11.5		11.5		SW-09-01	1 / 1	N/A	12
Barium	31.3		31.3		SW-09-01	1 / 1	N/A	31
Beryllium						0 / 1	0.093	0.047
Cadmium						0 / 1	1.5	0.75
Calcium	53200		53200		SW-09-01	1 / 1	N/A	53200
Chromium	4.3		4.3		SW-09-01	1 / 1	N/A	4.3
Cobalt						0 / 1	1.5	0.75
Copper	4.5		4.5		SW-09-01	1 / 1	N/A	4.5
Cyanide						0 / 1	5	2.5
Iron	1000		1000		SW-09-01	1 / 1	N/A	1000
Lead	1.8		1.8		SW-09-01	1 / 1	N/A	1.8
Magnesium	8360		8360		SW-09-01	1 / 1	N/A	8360
Manganese	644	J	644	J	SW-09-01	1 / 1	N/A	644
Mercury						0 / 1	0.2	0.10
Nickel	1.4		1.4		SW-09-01	1 / 1	N/A	1.4
Potassium	5330		5330		SW-09-01	1 / 1	N/A	5330
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	61100		61100		SW-09-01	1 / 1	N/A	61100
Thallium						0 / 1	1.7	0.85
Vanadium						0 / 1	1.2	0.60
Zinc	46.2		46.2		SW-09-01	1 / 1	N/A	46
Total Suspended Solids (mg/L)	9.9		9.9		SW-09-01	1 / 1	N/A	9.9
Dissolved Organic Carbon (mg/L)	5.6		5.6		SW-09-01	1 / 1	N/A	5.6
Total Dissolved Solids (mg/L)	430		430		SW-09-01	1 / 1	N/A	430
Alkalinity (as CaCO3) (mg/L)	70		70		SW-09-01	1 / 1	N/A	70
Chloride (mg/L)	101		101		SW-09-01	1 / 1	N/A	101
Nitrate/Nitrite Nitrogen (mg/L)	2.8		2.8		SW-09-01	1 / 1	N/A	2.8
Sulfate (mg/L)	123		123		SW-09-01	1 / 1	N/A	123

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-24
SURFACE WATER DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	3	1.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-24
SURFACE WATER DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-24
SURFACE WATER DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	2180		2180		SW-10-01	1 / 1	N/A	2180
Antimony	1.5		1.5		SW-10-01	1 / 1	N/A	1.5
Arsenic	77.1		77.1		SW-10-01	1 / 1	N/A	77
Barium	54.4		54.4		SW-10-01	1 / 1	N/A	54
Beryllium	0.18		0.18		SW-10-01	1 / 1	N/A	0.18
Cadmium	2.5		2.5		SW-10-01	1 / 1	N/A	2.5
Calcium	67700		67700		SW-10-01	1 / 1	N/A	67700
Chromium	146		146		SW-10-01	1 / 1	N/A	146
Cobalt	4.8		4.8		SW-10-01	1 / 1	N/A	4.8
Copper	111		111		SW-10-01	1 / 1	N/A	111
Cyanide						0 / 1	5	2.5
Iron	8470		8470		SW-10-01	1 / 1	N/A	8470
Lead	75.9	J	75.9	J	SW-10-01	1 / 1	N/A	76
Magnesium	10100		10100		SW-10-01	1 / 1	N/A	10100
Manganese	691		691		SW-10-01	1 / 1	N/A	691
Mercury	0.88		0.88		SW-10-01	1 / 1	N/A	0.88
Nickel	6.2		6.2		SW-10-01	1 / 1	N/A	6.2
Potassium	6420		6420		SW-10-01	1 / 1	N/A	6420
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	66000		66000		SW-10-01	1 / 1	N/A	66000
Thallium						0 / 1	1.7	0.85
Vanadium	7.4		7.4		SW-10-01	1 / 1	N/A	7.4
Zinc	626	J	626	J	SW-10-01	1 / 1	N/A	626
Total Suspended Solids (mg/L)	104		104		SW-10-01	1 / 1	N/A	104
Dissolved Organic Carbon (mg/L)	6.9		6.9		SW-10-01	1 / 1	N/A	6.9
Total Dissolved Solids (mg/L)	519		519		SW-10-01	1 / 1	N/A	519
Alkalinity (as CaCO3) (mg/L)	81		81		SW-10-01	1 / 1	N/A	81
Chloride (mg/L)	106		106		SW-10-01	1 / 1	N/A	106
Nitrate/Nitrite Nitrogen (mg/L)	2.2		2.2		SW-10-01	1 / 1	N/A	2.2
Sulfate (mg/L)	135		135		SW-10-01	1 / 1	N/A	135

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-25
SURFACE WATER DATA SUMMARY - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene	1		1		SW-11-01	1 / 1	N/A	1.0
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	2	1.0
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-25
SURFACE WATER DATA SUMMARY - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-25
SURFACE WATER DATA SUMMARY - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane	0.0014	J	0.0014	J	SW-11-01	1 / 1	N/A	0.0014
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide	0.0014	J	0.0014	J	SW-11-01	1 / 1	N/A	0.0014
Methoxychlor	0.015	J	0.015	J	SW-11-01	1 / 1	N/A	0.015
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	37.9		37.9		SW-11-01	1 / 1	N/A	38
Antimony						0 / 1	1.2	0.60
Arsenic	12.7		12.7		SW-11-01	1 / 1	N/A	13
Barium	33.2		33.2		SW-11-01	1 / 1	N/A	33
Beryllium						0 / 1	0.035	0.018
Cadmium						0 / 1	0.1	0.050
Calcium	70100		70100		SW-11-01	1 / 1	N/A	70100
Chromium	2.7		2.7		SW-11-01	1 / 1	N/A	2.7
Cobalt						0 / 1	1.5	0.75
Copper	4.1		4.1		SW-11-01	1 / 1	N/A	4.1
Cyanide						0 / 1	5	2.5
Iron	1150		1150		SW-11-01	1 / 1	N/A	1150
Lead						0 / 1	0.85	0.43
Magnesium	10100		10100		SW-11-01	1 / 1	N/A	10100
Manganese	336		336		SW-11-01	1 / 1	N/A	336
Mercury						0 / 1	0.095	0.048
Nickel	2		2		SW-11-01	1 / 1	N/A	2.0
Potassium	5970		5970		SW-11-01	1 / 1	N/A	5970
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	67500		67500		SW-11-01	1 / 1	N/A	67500
Thallium						0 / 1	1.7	0.85
Vanadium	0.79		0.79		SW-11-01	1 / 1	N/A	0.79
Zinc	33	J	33	J	SW-11-01	1 / 1	N/A	33
Total Suspended Solids (mg/L)	3.1		3.1		SW-11-01	1 / 1	N/A	3.1
Dissolved Organic Carbon (mg/L)	7.1		7.1		SW-11-01	1 / 1	N/A	7.1
Total Dissolved Solids (mg/L)	511		511		SW-11-01	1 / 1	N/A	511
Alkalinity (as CaCO3) (mg/L)	96		96		SW-11-01	1 / 1	N/A	96
Chloride (mg/L)	110		110		SW-11-01	1 / 1	N/A	110
Nitrate/Nitrite Nitrogen (mg/L)	2.3		2.3		SW-11-01	1 / 1	N/A	2.3
Sulfate (mg/L)	132		132		SW-11-01	1 / 1	N/A	132

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-26
SURFACE WATER DATA SUMMARY - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	5	2.5
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-26
SURFACE WATER DATA SUMMARY - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-26
SURFACE WATER DATA SUMMARY - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane	0.0021	J	0.0021	J	SW-12-01	1 / 1	N/A	0.0021
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide	0.0019	J	0.0019	J	SW-12-01	1 / 1	N/A	0.0019
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	70.9		70.9		SW-12-01	1 / 1	N/A	71
Antimony						0 / 1	1.1	0.55
Arsenic	22.7		22.7		SW-12-01	1 / 1	N/A	23
Barium	35.8		35.8		SW-12-01	1 / 1	N/A	36
Beryllium						0 / 1	0.1	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	86200		86200		SW-12-01	1 / 1	N/A	86200
Chromium	5.8		5.8		SW-12-01	1 / 1	N/A	5.8
Cobalt	0.79		0.79		SW-12-01	1 / 1	N/A	0.79
Copper	5.8		5.8		SW-12-01	1 / 1	N/A	5.8
Cyanide						0 / 1	5	2.5
Iron	1580		1580		SW-12-01	1 / 1	N/A	1580
Lead	0.93999		0.93999		SW-12-01	1 / 1	N/A	0.94
Magnesium	12100		12100		SW-12-01	1 / 1	N/A	12100
Manganese	506		506		SW-12-01	1 / 1	N/A	506
Mercury						0 / 1	0.08	0.040
Nickel	2.5		2.5		SW-12-01	1 / 1	N/A	2.5
Potassium	8040		8040		SW-12-01	1 / 1	N/A	8040
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	73200		73200		SW-12-01	1 / 1	N/A	73200
Thallium						0 / 1	1.5	0.75
Vanadium	0.84		0.84		SW-12-01	1 / 1	N/A	0.84
Zinc	47.7	J	47.7	J	SW-12-01	1 / 1	N/A	48
Total Suspended Solids (mg/L)	4		4		SW-12-01	1 / 1	N/A	4.0
Dissolved Organic Carbon (mg/L)	9.3		9.3		SW-12-01	1 / 1	N/A	9.3
Total Dissolved Solids (mg/L)	598		598		SW-12-01	1 / 1	N/A	598
Alkalinity (as CaCO3) (mg/L)	123		123		SW-12-01	1 / 1	N/A	123
Chloride (mg/L)	113		113		SW-12-01	1 / 1	N/A	113
Nitrate/Nitrite Nitrogen (mg/L)	2.6		2.6		SW-12-01	1 / 1	N/A	2.6
Sulfate (mg/L)	244		244		SW-12-01	1 / 1	N/A	244

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-27
SURFACE WATER DATA SUMMARY - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-27
SURFACE WATER DATA SUMMARY - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II	0.0015	J	0.0015	J	SW-13-01	1 / 1	N/A	0.0015
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide	0.0011	J	0.0011	J	SW-13-01	1 / 1	N/A	0.0011
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	279		279		SW-13-01	1 / 1	N/A	279
Antimony						0 / 1	1.1	0.55
Arsenic	21.5		21.5		SW-13-01	1 / 1	N/A	22
Barium	37.9		37.9		SW-13-01	1 / 1	N/A	38
Beryllium						0 / 1	0.099	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	78700		78700		SW-13-01	1 / 1	N/A	78700
Chromium	10.9		10.9		SW-13-01	1 / 1	N/A	11
Cobalt	1		1		SW-13-01	1 / 1	N/A	1.0
Copper	14.1		14.1		SW-13-01	1 / 1	N/A	14
Cyanide						0 / 1	5	2.5
Iron	1980		1980		SW-13-01	1 / 1	N/A	1980
Lead	9.5		9.5		SW-13-01	1 / 1	N/A	9.5
Magnesium	10800		10800		SW-13-01	1 / 1	N/A	10800
Manganese	493		493		SW-13-01	1 / 1	N/A	493
Mercury	0.26		0.26		SW-13-01	1 / 1	N/A	0.26
Nickel	2.4		2.4		SW-13-01	1 / 1	N/A	2.4
Potassium	7590		7590		SW-13-01	1 / 1	N/A	7590
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	68200		68200		SW-13-01	1 / 1	N/A	68200
Thallium						0 / 1	1.5	0.75
Vanadium	1.4		1.4		SW-13-01	1 / 1	N/A	1.4
Zinc	64.3	J	64.3	J	SW-13-01	1 / 1	N/A	64
Total Suspended Solids (mg/L)	2.8		2.8		SW-13-01	1 / 1	N/A	2.8
Dissolved Organic Carbon (mg/L)	8.7		8.7		SW-13-01	1 / 1	N/A	8.7
Total Dissolved Solids (mg/L)	555		555		SW-13-01	1 / 1	N/A	555
Alkalinity (as CaCO3) (mg/L)	120		120		SW-13-01	1 / 1	N/A	120
Chloride (mg/L)	111		111		SW-13-01	1 / 1	N/A	111
Nitrate/Nitrite Nitrogen (mg/L)	1.3		1.3		SW-13-01	1 / 1	N/A	1.3
Sulfate (mg/L)	230		230		SW-13-01	1 / 1	N/A	230

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-28
SURFACE WATER DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-28
SURFACE WATER DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-28
SURFACE WATER DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum						0 / 1	36.9	18
Antimony						0 / 1	1.1	0.55
Arsenic	13.4		13.4		SW-14-01	1 / 1	N/A	13
Barium	35.4		35.4		SW-14-01	1 / 1	N/A	35
Beryllium						0 / 1	0.1	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	87200		87200		SW-14-01	1 / 1	N/A	87200
Chromium	2.4		2.4		SW-14-01	1 / 1	N/A	2.4
Cobalt	1.15		1.15		SW-14-01	1 / 1	N/A	1.2
Copper	3.6		3.6		SW-14-01	1 / 1	N/A	3.6
Cyanide						0 / 1	5	2.5
Iron	1595		1595		SW-14-01	1 / 1	N/A	1595
Lead						0 / 1	0.75	0.38
Magnesium	11950		11950		SW-14-01	1 / 1	N/A	11950
Manganese	616		616		SW-14-01	1 / 1	N/A	616
Mercury						0 / 1	0.08	0.040
Nickel	2.5		2.5		SW-14-01	1 / 1	N/A	2.5
Potassium	7895		7895		SW-14-01	1 / 1	N/A	7895
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	72500		72500		SW-14-01	1 / 1	N/A	72500
Thallium						0 / 1	1.5	0.75
Vanadium	0.4925	J	0.4925	J	SW-14-01	1 / 1	N/A	0.49
Zinc	47.9	J	47.9	J	SW-14-01	1 / 1	N/A	48
Total Suspended Solids (mg/L)	4.9		4.9		SW-14-01	1 / 1	N/A	4.9
Dissolved Organic Carbon (mg/L)	8.85		8.85		SW-14-01	1 / 1	N/A	8.9
Total Dissolved Solids (mg/L)	508.5		508.5		SW-14-01	1 / 1	N/A	509
Alkalinity (as CaCO3) (mg/L)	138		138		SW-14-01	1 / 1	N/A	138
Chloride (mg/L)	114		114		SW-14-01	1 / 1	N/A	114
Nitrate/Nitrite Nitrogen (mg/L)	1.15		1.15		SW-14-01	1 / 1	N/A	1.2
Sulfate (mg/L)	248.5		248.5		SW-14-01	1 / 1	N/A	249

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-29
SURFACE WATER DATA SUMMARY - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-29
SURFACE WATER DATA SUMMARY - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-29
SURFACE WATER DATA SUMMARY - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum						0 / 1	31.1	16
Antimony						0 / 1	1.1	0.55
Arsenic	11.6		11.6		SW-15-01	1 / 1	N/A	12
Barium	33.5		33.5		SW-15-01	1 / 1	N/A	34
Beryllium						0 / 1	0.099	0.050
Cadmium						0 / 1	0.15	0.075
Calcium	80100		80100		SW-15-01	1 / 1	N/A	80100
Chromium	2.2		2.2		SW-15-01	1 / 1	N/A	2.2
Cobalt	0.68999		0.68999		SW-15-01	1 / 1	N/A	0.69
Copper	3.7		3.7		SW-15-01	1 / 1	N/A	3.7
Cyanide						0 / 1	5	2.5
Iron	972		972		SW-15-01	1 / 1	N/A	972
Lead						0 / 1	0.74	0.37
Magnesium	11100		11100		SW-15-01	1 / 1	N/A	11100
Manganese	316		316		SW-15-01	1 / 1	N/A	316
Mercury	0.12		0.12		SW-15-01	1 / 1	N/A	0.12
Nickel	2.2		2.2		SW-15-01	1 / 1	N/A	2.2
Potassium	7470		7470		SW-15-01	1 / 1	N/A	7470
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	69000		69000		SW-15-01	1 / 1	N/A	69000
Thallium						0 / 1	1.5	0.75
Vanadium	0.73		0.73		SW-15-01	1 / 1	N/A	0.73
Zinc	27.4	J	27.4	J	SW-15-01	1 / 1	N/A	27
Total Suspended Solids (mg/L)	2.9		2.9		SW-15-01	1 / 1	N/A	2.9
Dissolved Organic Carbon (mg/L)	8.2		8.2		SW-15-01	1 / 1	N/A	8.2
Total Dissolved Solids (mg/L)	491		491		SW-15-01	1 / 1	N/A	491
Alkalinity (as CaCO3) (mg/L)	122		122		SW-15-01	1 / 1	N/A	122
Chloride (mg/L)	111		111		SW-15-01	1 / 1	N/A	111
Nitrate/Nitrite Nitrogen (mg/L)	1.5		1.5		SW-15-01	1 / 1	N/A	1.5
Sulfate (mg/L)	228		228		SW-15-01	1 / 1	N/A	228

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-30
SURFACE WATER DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	5	2.5
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene	4		4		SW-16-01	1 / 1	N/A	4.0
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	2	1.0
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene	2		2		SW-16-01	1 / 1	N/A	2.0
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-30
SURFACE WATER DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-30
SURFACE WATER DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	325.5		325.5		SW-16-01	1 / 1	N/A	326
Antimony						0 / 1	1.2	0.60
Arsenic	19.75		19.75		SW-16-01	1 / 1	N/A	20
Barium	35.75		35.75		SW-16-01	1 / 1	N/A	36
Beryllium	0.043		0.043		SW-16-01	1 / 1	N/A	0.043
Cadmium	0.23		0.23		SW-16-01	1 / 1	N/A	0.23
Calcium	56750		56750		SW-16-01	1 / 1	N/A	56750
Chromium	12.1		12.1		SW-16-01	1 / 1	N/A	12
Cobalt	1.9		1.9		SW-16-01	1 / 1	N/A	1.9
Copper	13.75		13.75		SW-16-01	1 / 1	N/A	14
Cyanide						0 / 1	5	2.5
Iron	1935		1935		SW-16-01	1 / 1	N/A	1935
Lead	7.7	J	7.7	J	SW-16-01	1 / 1	N/A	7.7
Magnesium	8970		8970		SW-16-01	1 / 1	N/A	8970
Manganese	777.5		777.5		SW-16-01	1 / 1	N/A	778
Mercury	0.1475	J	0.1475	J	SW-16-01	1 / 1	N/A	0.15
Nickel	2.2		2.2		SW-16-01	1 / 1	N/A	2.2
Potassium	5130		5130		SW-16-01	1 / 1	N/A	5130
Selenium						0 / 1	1.5	0.75
Silver						0 / 1	0.75	0.38
Sodium	61750		61750		SW-16-01	1 / 1	N/A	61750
Thallium						0 / 1	1.7	0.85
Vanadium	1.65		1.65		SW-16-01	1 / 1	N/A	1.7
Zinc	91.75	J	91.75	J	SW-16-01	1 / 1	N/A	92
Total Suspended Solids (mg/L)	16.2		16.2		SW-16-01	1 / 1	N/A	16
Dissolved Organic Carbon (mg/L)	5.4		5.4		SW-16-01	1 / 1	N/A	5.4
Total Dissolved Solids (mg/L)	443		443		SW-16-01	1 / 1	N/A	443
Alkalinity (as CaCO3) (mg/L)	70		70		SW-16-01	1 / 1	N/A	70
Chloride (mg/L)	103.5		103.5		SW-16-01	1 / 1	N/A	104
Nitrate/Nitrite Nitrogen (mg/L)	3.05		3.05		SW-16-01	1 / 1	N/A	3.1
Sulfate (mg/L)	109		109		SW-16-01	1 / 1	N/A	109

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-31
SURFACE WATER DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 1	1	0.50
1,1,1-Trichloroethane						0 / 1	1	0.50
1,1,2,2-Tetrachloroethane						0 / 1	1	0.50
1,1,2-Trichloroethane						0 / 1	1	0.50
1,1-Dichloroethane						0 / 1	1	0.50
1,1-Dichloroethene						0 / 1	1	0.50
1,1-Dichloropropene						0 / 1	1	0.50
1,2,3-Trichlorobenzene						0 / 1	1	0.50
1,2,3-Trichloropropane						0 / 1	1	0.50
1,2,4-Trichlorobenzene						0 / 1	1	0.50
1,2,4-Trimethylbenzene						0 / 1	1	0.50
1,2-Dibromo-3-chloropropane						0 / 1	1	0.50
1,2-Dibromoethane						0 / 1	1	0.50
1,2-Dichlorobenzene						0 / 1	1	0.50
1,2-Dichloroethane						0 / 1	1	0.50
1,2-Dichloropropane						0 / 1	1	0.50
1,3,5-Trimethylbenzene						0 / 1	1	0.50
1,3-Dichlorobenzene						0 / 1	1	0.50
1,3-Dichloropropane						0 / 1	1	0.50
1,4-Dichlorobenzene						0 / 1	1	0.50
2,2-Dichloropropane						0 / 1	1	0.50
2-Butanone						0 / 1	5	2.5
2-Chlorotoluene						0 / 1	1	0.50
2-Hexanone						0 / 1	5	2.5
4-Chlorotoluene						0 / 1	1	0.50
4-Isopropyltoluene						0 / 1	1	0.50
4-Methyl-2-Pentanone						0 / 1	5	2.5
Acetone						0 / 1	5	2.5
Benzene						0 / 1	1	0.50
Bromobenzene						0 / 1	1	0.50
Bromochloromethane						0 / 1	1	0.50
Bromodichloromethane						0 / 1	1	0.50
Bromoform						0 / 1	1	0.50
Bromomethane						0 / 1	1	0.50
Carbon Disulfide						0 / 1	1	0.50
Carbon Tetrachloride						0 / 1	1	0.50
Chlorobenzene						0 / 1	1	0.50
Chloroethane						0 / 1	1	0.50
Chloroform						0 / 1	1	0.50
Chloromethane						0 / 1	1	0.50
cis-1,2-Dichloroethene						0 / 1	1	0.50
cis-1,3-Dichloropropene						0 / 1	1	0.50
Dibromochloromethane						0 / 1	1	0.50
Dibromomethane						0 / 1	1	0.50
Dichlorodifluoromethane						0 / 1	1	0.50
Ethylbenzene						0 / 1	1	0.50
Hexachlorobutadiene						0 / 1	1	0.50
Isopropylbenzene						0 / 1	1	0.50
Methylene Chloride						0 / 1	1	0.50
n-Butylbenzene						0 / 1	1	0.50
n-Propylbenzene						0 / 1	1	0.50
Naphthalene						0 / 1	1	0.50
sec-Butylbenzene						0 / 1	1	0.50
Styrene						0 / 1	1	0.50
tert-Butylbenzene						0 / 1	1	0.50
Tetrachloroethene						0 / 1	1	0.50
Toluene						0 / 1	1	0.50
Total Xylenes						0 / 1	1	0.50
Trans-1,2-Dichloroethene						0 / 1	1	0.50
trans-1,3-Dichloropropene						0 / 1	1	0.50
Trichloroethene						0 / 1	1	0.50
Trichlorofluoromethane						0 / 1	1	0.50
Vinyl Chloride						0 / 1	1	0.50

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TABLE 2-31
SURFACE WATER DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	20	10
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	20	10
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	20	10
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	20	10
4,6-Dinitro-2-methylphenol						0 / 1	20	10
4-Bromophenol-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	20	10
4-Nitrophenol						0 / 1	20	10
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
bis(2-Chloroethoxy)methane						0 / 1	5	2.5
bis(2-chloroethyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Di-n-butylphthalate						0 / 1	5	2.5
Di-n-octyl phthalate						0 / 1	5	2.5
Dibenzo(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethyl Phthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	5	2.5
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
Pentachlorophenol						0 / 1	20	10
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-31
SURFACE WATER DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.1	0.050
4,4'-DDE						0 / 1	0.1	0.050
4,4'-DDT						0 / 1	0.1	0.050
Aldrin						0 / 1	0.05	0.025
alpha-BHC						0 / 1	0.05	0.025
alpha-Chlordane						0 / 1	0.05	0.025
Aroclor 1016						0 / 1	1	0.50
Aroclor 1221						0 / 1	2	1.0
Aroclor 1232						0 / 1	1	0.50
Aroclor 1242						0 / 1	1	0.50
Aroclor 1248						0 / 1	1	0.50
Aroclor 1254						0 / 1	1	0.50
Aroclor 1260						0 / 1	1	0.50
beta-BHC						0 / 1	0.05	0.025
delta-BHC						0 / 1	0.05	0.025
Dieldrin						0 / 1	0.1	0.050
Endosulfan I						0 / 1	0.05	0.025
Endosulfan II						0 / 1	0.1	0.050
Endosulfan sulfate						0 / 1	0.1	0.050
Endrin						0 / 1	0.1	0.050
Endrin aldehyde						0 / 1	0.1	0.050
Endrin ketone						0 / 1	0.1	0.050
gamma-BHC (Lindane)						0 / 1	0.05	0.025
gamma-Chlordane						0 / 1	0.05	0.025
Heptachlor						0 / 1	0.05	0.025
Heptachlor epoxide						0 / 1	0.05	0.025
Methoxychlor						0 / 1	0.5	0.25
Toxaphene						0 / 1	5	2.5
Metals - ug/L								
Aluminum	101		101		SW-18-01	1 / 1	N/A	101
Antimony						0 / 1	1.1	0.55
Arsenic	13.1		13.1		SW-18-01	1 / 1	N/A	13
Barium	31.2		31.2		SW-18-01	1 / 1	N/A	31
Beryllium						0 / 1	0.1	0.050
Cadmium	0.16		0.16		SW-18-01	1 / 1	N/A	0.16
Calcium	76800		76800		SW-18-01	1 / 1	N/A	76800
Chromium	10.5		10.5		SW-18-01	1 / 1	N/A	11
Cobalt	1.1		1.1		SW-18-01	1 / 1	N/A	1.1
Copper	8.5		8.5		SW-18-01	1 / 1	N/A	8.5
Cyanide						0 / 1	5	2.5
Iron	1060		1060		SW-18-01	1 / 1	N/A	1060
Lead	4		4		SW-18-01	1 / 1	N/A	4.0
Magnesium	11000		11000		SW-18-01	1 / 1	N/A	11000
Manganese	330		330		SW-18-01	1 / 1	N/A	330
Mercury						0 / 1	0.08	0.040
Nickel	2.1		2.1		SW-18-01	1 / 1	N/A	2.1
Potassium	7640		7640		SW-18-01	1 / 1	N/A	7640
Selenium						0 / 1	1.8	0.90
Silver						0 / 1	0.4	0.20
Sodium	68000		68000		SW-18-01	1 / 1	N/A	68000
Thallium						0 / 1	1.5	0.75
Vanadium	1.5		1.5		SW-18-01	1 / 1	N/A	1.5
Zinc	48.2	J	48.2	J	SW-18-01	1 / 1	N/A	48
Total Suspended Solids (mg/L)	9.1		9.1		SW-18-01	1 / 1	N/A	9.1
Dissolved Organic Carbon (mg/L)	8.5		8.5		SW-18-01	1 / 1	N/A	8.5
Total Dissolved Solids (mg/L)	552		552		SW-18-01	1 / 1	N/A	552
Alkalinity (as CaCO3) (mg/L)	104		104		SW-18-01	1 / 1	N/A	104
Chloride (mg/L)	114		114		SW-18-01	1 / 1	N/A	114
Nitrate/Nitrite Nitrogen (mg/L)	1		1		SW-18-01	1 / 1	N/A	1.0
Sulfate (mg/L)	203		203		SW-18-01	1 / 1	N/A	203

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-32
SURFACE WATER DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1,2-Tetrachloroethane						0 / 16	1	0.50
1,1,1-Trichloroethane						0 / 16	1	0.50
1,1,2,2-Tetrachloroethane						0 / 16	1	0.50
1,1,2-Trichloroethane						0 / 16	1	0.50
1,1-Dichloroethane						0 / 16	1	0.50
1,1-Dichloroethene						0 / 16	1	0.50
1,1-Dichloropropene						0 / 16	1	0.50
1,2,3-Trichlorobenzene						0 / 16	1	0.50
1,2,3-Trichloropropane						0 / 16	1	0.50
1,2,4-Trichlorobenzene						0 / 16	1	0.50
1,2,4-Trimethylbenzene						0 / 16	1	0.50
1,2-Dibromo-3-chloropropane						0 / 16	1	0.50
1,2-Dibromoethane						0 / 16	1	0.50
1,2-Dichlorobenzene						0 / 16	1	0.50
1,2-Dichloroethane						0 / 16	1	0.50
1,2-Dichloropropane						0 / 16	1	0.50
1,3,5-Trimethylbenzene						0 / 16	1	0.50
1,3-Dichlorobenzene						0 / 16	1	0.50
1,3-Dichloropropane						0 / 16	1	0.50
1,4-Dichlorobenzene						0 / 16	1	0.50
2,2-Dichloropropane						0 / 16	1	0.50
2-Butanone						0 / 16	5	2.5
2-Chlorotoluene						0 / 16	1	0.50
2-Hexanone						0 / 16	5	2.5
4-Chlorotoluene						0 / 16	1	0.50
4-Isopropyltoluene						0 / 16	1	0.50
4-Methyl-2-Pentanone						0 / 16	5	2.5
Acetone						0 / 16	5	2.5
Benzene						0 / 16	1	0.50
Bromobenzene						0 / 16	1	0.50
Bromochloromethane						0 / 16	1	0.50
Bromodichloromethane						0 / 16	1	0.50
Bromoform						0 / 16	1	0.50
Bromomethane						0 / 16	1	0.50
Carbon Disulfide						0 / 16	1 - 5	2.0
Carbon Tetrachloride						0 / 16	1	0.50
Chlorobenzene						0 / 16	1	0.50
Chloroethane						0 / 16	1	0.50
Chloroform	1	J	1	J	SW-05-01	1 / 16	1	0.53
Chloromethane						0 / 16	1	0.50
cis-1,2-Dichloroethene	1		4		SW-16-01	3 / 16	1	0.91
cis-1,3-Dichloropropene						0 / 16	1	0.50
Dibromochloromethane						0 / 16	1	0.50
Dibromomethane						0 / 16	1	0.50
Dichlorodifluoromethane						0 / 16	1	0.50
Ethylbenzene						0 / 16	1	0.50
Hexachlorobutadiene						0 / 16	1	0.50
Isopropylbenzene						0 / 16	1	0.50
Methylene Chloride						0 / 16	1 - 16	1.7
n-Butylbenzene						0 / 16	1	0.50
n-Propylbenzene						0 / 16	1	0.50
Naphthalene						0 / 16	1	0.50
sec-Butylbenzene						0 / 16	1	0.50
Styrene						0 / 16	1	0.50
tert-Butylbenzene						0 / 16	1	0.50
Tetrachloroethene	2		2		SW-05-01	1 / 16	1	0.59
Toluene						0 / 16	1	0.50
Total Xylenes						0 / 16	1	0.50
Trans-1,2-Dichloroethene						0 / 16	1	0.50
trans-1,3-Dichloropropene						0 / 16	1	0.50
Trichloroethene	2		2		SW-09-01	2 / 16	1	0.69
Trichlorofluoromethane						0 / 16	1	0.50
Vinyl Chloride						0 / 16	1	0.50

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TABLE 2-32
SURFACE WATER DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 17	5	2.5
2,2'-oxybis(1-Chloropropane)						0 / 17	5	2.5
2,4,5-Trichlorophenol						0 / 17	20	10
2,4,6-Trichlorophenol						0 / 17	5	2.5
2,4-Dichlorophenol						0 / 17	5	2.5
2,4-Dimethylphenol						0 / 17	5	2.5
2,4-Dinitrophenol						0 / 17	20	10
2,4-Dinitrotoluene						0 / 17	5	2.5
2,6-Dinitrotoluene						0 / 17	5	2.5
2-Chloronaphthalene						0 / 17	5	2.5
2-Chlorophenol						0 / 17	5	2.5
2-Methylnaphthalene						0 / 17	5	2.5
2-Methylphenol						0 / 17	5	2.5
2-Nitroaniline						0 / 17	20	10
2-Nitrophenol						0 / 17	5	2.5
3,3'-Dichlorobenzidine						0 / 16	5	2.5
3-Nitroaniline						0 / 17	20	10
4,6-Dinitro-2-methylphenol						0 / 17	20	10
4-Bromophenol-phenylether						0 / 17	5	2.5
4-Chloro-3-methylphenol						0 / 17	5	2.5
4-Chloroaniline						0 / 17	5	2.5
4-Chlorophenyl-phenylether						0 / 17	5	2.5
4-Methylphenol						0 / 17	5	2.5
4-Nitroaniline						0 / 17	20	10
4-Nitrophenol						0 / 16	20	10
Acenaphthene						0 / 17	5	2.5
Acenaphthylene						0 / 17	5	2.5
Anthracene						0 / 17	5	2.5
Benzo(a)anthracene						0 / 17	5	2.5
Benzo(a)pyrene						0 / 17	5	2.5
Benzo(b)fluoranthene						0 / 17	5	2.5
Benzo(g,h,i)perylene						0 / 17	5	2.5
Benzo(k)fluoranthene						0 / 17	5	2.5
bis(2-Chloroethoxy)methane						0 / 17	5	2.5
bis(2-chloroethyl)ether						0 / 17	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 17	5	2.5
Butylbenzylphthalate						0 / 17	5	2.5
Chrysene						0 / 17	5	2.5
Di-n-butylphthalate						0 / 17	5	2.5
Di-n-octyl phthalate						0 / 17	5	2.5
Dibenzo(a,h)anthracene						0 / 17	5	2.5
Dibenzofuran						0 / 17	5	2.5
Diethylphthalate						0 / 17	5	2.5
Dimethyl Phthalate						0 / 17	5	2.5
Fluoranthene						0 / 17	5	2.5
Fluorene						0 / 17	5	2.5
Hexachlorobenzene						0 / 17	5	2.5
Hexachlorobutadiene						0 / 17	5	2.5
Hexachlorocyclopentadiene						0 / 17	5	2.5
Hexachloroethane						0 / 17	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 17	5	2.5
Isophorone						0 / 17	5	2.5
N-Nitroso-di-n-propylamine						0 / 17	5	2.5
N-Nitrosodiphenylamine						0 / 17	5	2.5
Naphthalene						0 / 17	5	2.5
Nitrobenzene						0 / 17	5	2.5
Pentachlorophenol						0 / 17	20	10
Phenanthrene						0 / 17	5	2.5
Phenol						0 / 17	5	2.5
Pyrene						0 / 17	5	2.5

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TABLE 2-32
SURFACE WATER DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 17	0.1	0.050
4,4'-DDE						0 / 17	0.1	0.050
4,4'-DDT						0 / 17	0.1	0.050
Aldrin						0 / 17	0.05	0.025
alpha-BHC						0 / 17	0.05	0.025
alpha-Chlordane	0.0021	J	0.0021	J	SW-12-01	1 / 17	0.05	0.024
Aroclor 1016						0 / 17	1	0.50
Aroclor 1221						0 / 17	2	1.0
Aroclor 1232						0 / 17	1	0.50
Aroclor 1242						0 / 17	1	0.50
Aroclor 1248						0 / 17	1	0.50
Aroclor 1254						0 / 17	1	0.50
Aroclor 1260						0 / 17	1	0.50
beta-BHC						0 / 17	0.05	0.025
delta-BHC						0 / 17	0.05	0.025
Dieldrin						0 / 17	0.1	0.050
Endosulfan I						0 / 17	0.05	0.025
Endosulfan II	0.0015	J	0.0015	J	SW-13-01	1 / 17	0.1	0.047
Endosulfan sulfate						0 / 17	0.1	0.050
Endrin						0 / 17	0.1	0.050
Endrin aldehyde						0 / 17	0.1	0.050
Endrin ketone						0 / 17	0.1	0.050
gamma-BHC (Lindane)						0 / 17	0.05	0.025
gamma-Chlordane	0.0014	J	0.0014	J	SW-11-01	1 / 17	0.05	0.024
Heptachlor						0 / 17	0.05	0.025
Heptachlor epoxide	0.0011	J	0.0019	J	SW-12-01	3 / 17	0.05	0.021
Methoxychlor	0.015	J	0.015	J	SW-11-01	1 / 17	0.5	0.24
Toxaphene						0 / 17	5	2.5
Metals - ug/L								
Aluminum	27.3		2180		SW-10-01	15 / 17	31.1 - 36.9	253
Antimony	1.3		1.5		SW-10-01	2 / 17	1.1 - 1.2	0.68
Arsenic	2.8		77.1		SW-10-01	13 / 17	3.4 - 13.9	14
Barium	29.2		54.4		SW-10-01	17 / 17	N/A	37
Beryllium	0.043		0.18		SW-10-01	3 / 17	0.035 - 0.1	0.051
Cadmium	0.16		2.5		SW-10-01	3 / 17	0.099 - 1.5	0.30
Calcium	28100		87200		SW-14-01	17 / 17	N/A	56115
Chromium	0.72		146		SW-10-01	17 / 17	N/A	13
Cobalt	0.43		4.8		SW-10-01	8 / 17	0.4 - 1.5	0.90
Copper	1.7		111		SW-10-01	17 / 17	N/A	12
Cyanide						0 / 17	5	2.5
Iron	304		8470		SW-10-01	17 / 17	N/A	1561
Lead	0.93999		75.9	J	SW-10-01	11 / 17	0.74 - 0.85	7.4
Magnesium	5030		12100		SW-12-01	17 / 17	N/A	8527
Manganese	70.9		777.5		SW-16-01	17 / 17	N/A	422
Mercury	0.04	J	0.88		SW-10-01	8 / 17	0.08 - 0.2	0.15
Nickel	0.89		6.2		SW-10-01	17 / 17	N/A	2.1
Potassium	3850		8040		SW-12-01	17 / 17	N/A	5745
Selenium						0 / 17	1.5 - 1.8	0.79
Silver						0 / 17	0.4 - 0.75	0.32
Sodium	49000		73200		SW-12-01	17 / 17	N/A	62821
Thallium						0 / 17	1.5 - 1.7	0.82
Vanadium	0.4925	J	7.4		SW-10-01	14 / 17	0.55 - 1.2	1.4
Zinc	10.8		626	J	SW-10-01	16 / 17	4	72
Total Suspended Solids (mg/L)	2.6		104		SW-10-01	17 / 17	N/A	12
Dissolved Organic Carbon (mg/L)	4.9		9.3		SW-12-01	17 / 17	N/A	7.2
Total Dissolved Solids (mg/L)	219		935		SW-01-01	17 / 17	N/A	458
Alkalinity (as CaCO3) (mg/L)	49		138		SW-14-01	17 / 17	N/A	81
Chloride (mg/L)	78.9		114		SW-14-01	17 / 17	N/A	102
Nitrate/Nitrite Nitrogen (mg/L)	0.62		5.1		SW-08-01	17 / 17	N/A	2.0
Sulfate (mg/L)	35		248.5		SW-14-01	17 / 17	N/A	125

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-33
SURFACE WATER DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SW-01-01	SW-02-01	SW-03-01	SW-04-01	SW-05-01	SW-06-01	SW-07-01	SW-08-01	SW-09-01
VOCs (ug/L)									
Chloroform	1 U	1 U	1 U	1 U	1 J	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3
Tetrachloroethene	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2
SVOCs (ug/L)									
No Detections									
PCB/Pesticides (ug/L)									
alpha-Chlordane	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
gamma-Chlordane	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U
Metals (ug/L)									
Aluminum	426	50.4	298	47.7	27.3	199	129	40.2	55.3
Antimony	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3	1.2 U	1.2 U
Arsenic	3.1	2.8	5.2	6.5 U	3.4 UJ	6.5 U	13.9 U	6.8	11.5
Barium	29.6	34.5	41.9	44.4	50.3	32	33.9	29.2	31.3
Beryllium	0.035 U	0.035 U	0.035 U	0.11	0.059 UJ	0.097 U	0.1 U	0.095 U	0.093 U
Cadmium	0.099 U	0.1 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	1.4 U	1.5 UJ
Calcium	28100	28800	28900	32600	41800	42500	45300	49200	53200
Chromium	1.5	0.72	3.7	0.75	0.85	4.3	3.1	2.2	4.3
Cobalt	0.43	0.4 U	0.4 U	0.4 U	0.4 U	0.88 UJ	0.96 UJ	0.61 UJ	1.5 U
Copper	6.8	2.2	6	2.5	1.7	5.2	3.6	3.3	4.5
Iron	703	304	1080	544	376	1180	1920	693	1000
Lead	4.1 J	0.85 UJ	7.5 J	1.7	0.84 U	5.7	4.3	0.85 U	1.8
Magnesium	5030	5060	5120	5710	7290	6830	7400	8040	8360
Manganese	70.9	97.4	221	317	320	504	585	356 J	644 J
Mercury	0.04 J	0.062 J	0.069 J	0.2 UJ	0.2 UJ	0.2 UJ	0.22 J	0.2 UJ	0.2 U
Nickel	2	0.89	1.5	1.1	1.3	1.9	1.7	1.3	1.4
Potassium	4160 J	4070 J	4070 J	3850	4560	5180	5050	5240	5330
Sodium	62600	58900	49000	51200	65900	59800	54500	58800	61100
Vanadium	1.3	0.58	1.3	0.55 U	0.68	1.5	1.9	1.1 U	1.2 U
Zinc	45.5	4 U	29.4	12.4	10.8	29.8	18.9	37.7	46.2
Total Suspended Solids (mg/L)	3	4.7	9.1	12	2.6	8.1	11.8	3.4	9.9
Dissolved Organic Carbon (mg/L)	6.8	7.1	8	7.1	5.7	6	7.6	4.9	5.6
Total Dissolved Solids (mg/L)	935	268	249	467	340	338	358	219	430
Alkalinity (as $CaCO_3$) (mg/L)	51	50	52	53	71	67	59	49	70
Chloride (mg/L)	95.4	85.1	78.9	86.9	111	102	97.8	99.5	101
Nitrate/Nitrite Nitrogen (mg/L)	1.1	0.89	0.9	0.62	2.1	2.2	2.9	5.1	2.8
Sulfate (mg/L)	40	35	54	49	48	70	88	87	123
Hardness (as $CaCO_3$) (mg/L) calc.	91	93	93	105	134	134	144	156	167

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TABLE 2-33
SURFACE WATER DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SW-10-01	SW-11-01	SW-12-01	SW-13-01	SW-14-01	SW-15-01	SW-16-01	SW-18-01
VOCs (ug/L)								
Chloroform	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1	1 U	NA	1 U	1 U	4	1 U
Tetrachloroethene	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	NA	1 U	1 U	2	1 U
SVOCs (ug/L)								
No Detections								
PCB/Pesticides (ug/L)								
alpha-Chlordane	0.05 U	0.05 U	0.0021 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
Endosulfan II	0.1 U	0.1 U	0.1 U	0.0015 J	0.1 U	0.1 U	0.1 U	0.1 UJ
gamma-Chlordane	0.05 U	0.0014 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ
Heptachlor epoxide	0.05 U	0.0014 J	0.0019 J	0.0011 J	0.05 U	0.05 U	0.05 U	0.05 UJ
Methoxychlor	0.5 U	0.015 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Metals (ug/L)								
Aluminum	2180	37.9	70.9	279	36.9 U	31.1 U	325.5	101
Antimony	1.5	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U
Arsenic	77.1	12.7	22.7	21.5	13.4	11.6	19.75	13.1
Barium	54.4	33.2	35.8	37.9	35.4	33.5	35.75	31.2
Beryllium	0.18	0.035 U	0.1 U	0.099 U	0.1 U	0.099 U	.043	0.1 U
Cadmium	2.5	0.1 U	0.15 U	0.15 U	0.15 U	0.15 U	.23	0.16
Calcium	67700	70100	86200	78700	87200	80100	56750	76800
Chromium	146	2.7	5.8	10.9	2.4	2.2	12.1	10.5
Cobalt	4.8	1.5 U	0.79	1	1.15	0.68999	1.9	1.1
Copper	111	4.1	5.8	14.1	3.6	3.7	13.75	8.5
Iron	8470	1150	1580	1980	1595	972	1935	1060
Lead	75.9 J	0.85 U	0.93999	9.5	0.75 U	0.74 U	7.7 J	4
Magnesium	10100	10100	12100	10800	11950	11100	8970	11000
Manganese	691	336	506	493	616	316	777.5	330
Mercury	0.88	0.095 U	0.08 U	0.26	0.08 U	0.12	0.1475 J	0.08 U
Nickel	6.2	2	2.5	2.4	2.5	2.2	2.2	2.1
Potassium	6420	5970	8040	7590	7895	7470	5130	7640
Sodium	66000	67500	73200	68200	72500	69000	61750	68000
Vanadium	7.4	0.79	0.84	1.4	0.4925 J	0.73	1.65	1.5
Zinc	626 J	33 J	47.7 J	64.3 J	47.9 J	27.4 J	91.75 J	48.2 J
Total Suspended Solids (mg/L)	104	3.1	4	2.8	4.9	2.9	16.2	9.1
Dissolved Organic Carbon (mg/L)	6.9	7.1	9.3	8.7	8.85	8.2	5.4	8.5
Total Dissolved Solids (mg/L)	519	511	598	555	508.5	491	443	552
Alkalinity (as $CaCO_3$) (mg/L)	81	96	123	120	138	122	70	104
Chloride (mg/L)	106	110	113	111	114	111	103.5	114
Nitrate/Nitrite Nitrogen (mg/L)	2.2	2.3	2.6	1.3	1.15	1.5	3.05	1
Sulfate (mg/L)	135	132	244	230	248.5	228	109	203
Hardness (as $CaCO_3$) (mg/L) calc.	211	217	265	241	267	246	179	237

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TABLE 2-34
SEDIMENT DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 2	14 - 18	8.0
1,1,2,2-Tetrachloroethane						0 / 2	14 - 18	8.0
1,1,2-Trichloroethane						0 / 2	14 - 18	8.0
1,1-Dichloroethane						0 / 2	14 - 18	8.0
1,1-Dichloroethene						0 / 2	14 - 18	8.0
1,2-Dichloroethane						0 / 2	14 - 18	8.0
1,2-Dichloroethene(total)						0 / 2	14 - 18	8.0
1,2-Dichloropropane						0 / 2	14 - 18	8.0
2-Butanone						0 / 2	14 - 18	8.0
2-Hexanone						0 / 2	14 - 18	8.0
4-Methyl-2-pentanone						0 / 2	14 - 18	8.0
Acetone						0 / 2	20 - 33	13
Benzene						0 / 2	14 - 18	8.0
Bromodichloromethane						0 / 2	14 - 18	8.0
Bromoform						0 / 2	14 - 18	8.0
Bromomethane						0 / 2	14 - 18	8.0
Carbon Disulfide						0 / 2	14 - 18	8.0
Carbon Tetrachloride						0 / 2	14 - 18	8.0
Chlorobenzene						0 / 2	14 - 18	8.0
Chloroethane						0 / 2	14 - 18	8.0
Chloroform						0 / 2	14 - 18	8.0
Chloromethane						0 / 2	14 - 18	8.0
cis-1,3-Dichloropropene						0 / 2	14 - 18	8.0
Dibromochloromethane						0 / 2	14 - 18	8.0
Ethylbenzene						0 / 2	14 - 18	8.0
Methylene Chloride						0 / 2	14 - 20	8.5
Styrene						0 / 2	14 - 18	8.0
Tetrachloroethene						0 / 2	14 - 18	8.0
Toluene						0 / 2	14 - 18	8.0
trans-1,3-Dichloropropene						0 / 2	14 - 18	8.0
Trichloroethene						0 / 2	14 - 18	8.0
Vinyl Chloride						0 / 2	14 - 18	8.0
Xylenes (total)						0 / 2	14 - 18	8.0
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 2	460 - 600	265
1,2-Dichlorobenzene						0 / 2	460 - 600	265
1,3-Dichlorobenzene						0 / 2	460 - 600	265
1,4-Dichlorobenzene						0 / 2	460 - 600	265
2,2'-oxybis(1-Chloropropane)						0 / 2	460 - 600	265
2,4,5-Trichlorophenol						0 / 2	1200 - 1500	675
2,4,6-Trichlorophenol						0 / 2	460 - 600	265
2,4-Dichlorophenol						0 / 2	460 - 600	265
2,4-Dimethylphenol						0 / 2	460 - 600	265
2,4-Dinitrophenol						0 / 2	1200 - 1500	675
2,4-Dinitrotoluene						0 / 2	460 - 600	265
2,6-Dinitrotoluene						0 / 2	460 - 600	265
2-Chloronaphthalene						0 / 2	460 - 600	265
2-Chlorophenol						0 / 2	460 - 600	265
2-Methylnaphthalene	67	J	67	J	SD-23-02-FW	1 / 2	600	184
2-Methylphenol						0 / 2	460 - 600	265
2-Nitroaniline						0 / 2	1200 - 1500	675
2-Nitrophenol						0 / 2	460 - 600	265
3,3'-Dichlorobenzidine						0 / 2	460 - 600	265
3-Nitroaniline						0 / 2	1200 - 1500	675
4,6-Dinitro-2-methylphenol						0 / 2	1200 - 1500	675
4-Bromophenyl-phenylether						0 / 2	460 - 600	265
4-Chloro-3-methylphenol						0 / 2	460 - 600	265
4-Chloroaniline						0 / 2	460 - 600	265
4-Chlorophenyl-phenyl ether						0 / 2	460 - 600	265

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TABLE 2-34
SEDIMENT DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Methylphenol						0 / 2	460 - 600	265
4-Nitroaniline						0 / 2	1200 - 1500	675
4-Nitrophenol						0 / 2	1200 - 1500	675
Acenaphthene	120	J	120	J	SD-23-02-FW	1 / 2	600	210
Acenaphthylene	450	J	450	J	SD-23-02-FW	1 / 2	600	375
Anthracene	530		530		SD-23-02-FW	1 / 2	600	415
Benzo(a)anthracene	1800		1800		SD-23-02-FW	1 / 2	600	1050
Benzo(a)pyrene	1700		1700		SD-23-02-FW	1 / 2	600	1000
Benzo(b)fluoranthene	2300		2300		SD-23-02-FW	1 / 2	600	1300
Benzo(g,h,i)perylene						0 / 2	460 - 600	265
Benzo(k)fluoranthene	2100		2100		SD-23-02-FW	1 / 2	600	1200
bis(2-Chloroethoxy)methane						0 / 2	460 - 600	265
bis(2-Chloroethyl)ether						0 / 2	460 - 600	265
bis(2-Ethylhexyl)phthalate	120	J	120	J	SD-23-02-FW	1 / 2	600	210
Butylbenzylphthalate						0 / 2	460 - 600	265
Carbazole						0 / 2	460 - 600	265
Chrysene	2000		2000		SD-23-02-FW	1 / 2	600	1150
Di-n-butylphthalate						0 / 2	460 - 600	265
Di-n-octylphthalate						0 / 2	460 - 600	265
Dibenz(a,h)anthracene						0 / 2	460 - 600	265
Dibenzofuran						0 / 2	460 - 600	265
Diethylphthalate	48	J	170	J	SD-23-03-FW	2 / 3	600	173
Dimethylphthalate						0 / 2	460 - 600	265
Fluoranthene	71	J	3100		SD-23-02-FW	2 / 2	N/A	1586
Fluorene	340	J	340	J	SD-23-02-FW	1 / 2	600	320
Hexachlorobenzene						0 / 2	460 - 600	265
Hexachlorobutadiene sv						0 / 2	460 - 600	265
Hexachlorocyclopentadiene						0 / 2	460 - 600	265
Hexachloroethane						0 / 2	460 - 600	265
Indeno(1,2,3-cd)pyrene						0 / 2	460 - 600	265
Isophorone						0 / 2	460 - 600	265
N-Nitroso-di-n-propylamine						0 / 2	460 - 600	265
N-nitrosodiphenylamine						0 / 2	460 - 600	265
Naphthalene						0 / 2	460 - 600	265
Nitrobenzene						0 / 2	460 - 600	265
Pentachlorophenol						0 / 2	1200 - 1500	675
Phenanthrene	3000		3000		SD-23-02-FW	1 / 2	600	1650
Phenol						0 / 2	460 - 600	265
Pyrene	81	J	3600		SD-23-02-FW	2 / 2	N/A	1841
PCBs/Pesticides - ug/Kg								
4,4'-DDD	60		84	J	SD-23-02-FW	2 / 2	N/A	72
4,4'-DDE	11		17	J	SD-23-02-FW	2 / 2	N/A	14
4,4'-DDT	22	J	22	J	SD-23-02-FW	1 / 2	6	13
Aldrin						0 / 2	2.4 - 3.1	1.4
alpha-BHC						0 / 2	2.4 - 3.1	1.4
alpha-Chlordane						0 / 2	3.1 - 4.6	1.9
Aroclor 1016						0 / 2	46 - 60	27
Aroclor 1221						0 / 2	93 - 120	53
Aroclor 1232						0 / 2	46 - 60	27
Aroclor 1242						0 / 2	46 - 60	27
Aroclor 1248						0 / 2	46 - 60	27
Aroclor 1254						0 / 2	46 - 60	27
Aroclor 1260						0 / 2	46 - 60	27
beta-BHC	0.75	J	0.75	J	SD-23-01-FW	1 / 2	2.4	1.0
delta-BHC						0 / 2	2.4 - 3.1	1.4

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TABLE 2-34
SEDIMENT DATA SUMMARY - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	1.1	J	1.1	J	SD-23-01-FW	1 / 2	4.6	1.7
Endosulfan I						0 / 2	2.4 - 3.1	1.4
Endosulfan II						0 / 2	4.6 - 6	2.7
Endosulfan sulfate						0 / 2	4.6 - 6	2.7
Endrin	1.6	J	1.6	J	SD-23-02-FW	1 / 2	6	2.3
Endrin aldehyde						0 / 2	4.6 - 6	2.7
Endrin ketone						0 / 2	4.6 - 6	2.7
gamma-BHC (Lindane)						0 / 2	2.4 - 3.1	1.4
gamma-Chlordane	0.31	J	0.31	J	SD-23-02-FW	1 / 2	3.1	0.93
Heptachlor						0 / 2	2.4 - 3.1	1.4
Heptachlor epoxide						0 / 2	2.4 - 3.1	1.4
Methoxychlor						0 / 2	24 - 31	14
Toxaphene						0 / 2	240 - 310	138
Metals - mg/Kg								
Aluminum	1100		5860	J	SD-23-03-FW	3 / 3	N/A	4023
Antimony	0.74	J	1.7	J	SD-23-03-FW	2 / 3	0.45	0.89
Arsenic	5.2		17.8		SD-23-02-FW	3 / 3	N/A	13
Barium	5.7		25.8	J	SD-23-03-FW	3 / 3	N/A	18
Beryllium	0.31		1	J	SD-23-03-FW	2 / 3	0.19	0.47
Cadmium	0.08699		0.9	J	SD-23-03-FW	3 / 3	N/A	0.36
Calcium	622		6410	J	SD-23-03-FW	3 / 3	N/A	2652
Chromium	13.7	J	29.1	J	SD-23-01-FW	3 / 3	N/A	22
Cobalt	0.76		3.2		SD-23-02-FW	3 / 3	N/A	2.0
Copper	1.9		9.5		SD-23-02-FW	3 / 3	N/A	6.8
Cyanide						0 / 2	0.56 - 0.82	0.35
Iron	2040		9220		SD-23-02-FW	3 / 3	N/A	4920
Lead	5.6	J	19.7		SD-23-02-FW	3 / 3	N/A	11
Magnesium	324		2230		SD-23-02-FW	3 / 3	N/A	1137
Manganese	12.6	J	133	J	SD-23-03-FW	3 / 3	N/A	79
Mercury	0.068	J	0.07	J	SD-23-01-FW	2 / 2	N/A	0.069
Nickel	1.1		8.3		SD-23-02-FW	3 / 3	N/A	4.3
Potassium	126		780		SD-23-02-FW	3 / 3	N/A	360
Selenium	3	J	3	J	SD-23-03-FW	1 / 3	0.56 - 0.89	1.2
Silver						0 / 2	0.28 - 0.44	0.18
Sodium	66.5		264	J	SD-23-03-FW	3 / 3	N/A	151
Thallium						0 / 2	0.65 - 1	0.41
Vanadium	2.5		18	J	SD-23-03-FW	3 / 3	N/A	11
Zinc	10.4	J	30.6		SD-23-02-FW	3 / 3	N/A	18
AVS-SEM - mg/Kg								
Cadmium	0.33		0.33		SD-23-03-FW	1 / 3	0.1 - 0.14	0.15
Copper	13	J	13	J	SD-23-02-FW	1 / 3	0.96 - 21.7	8.0
Lead	11	J	20	J	SD-23-03-FW	2 / 3	1.8	11
Mercury						0 / 3	0.003 - 0.01	0.0028
Nickel						0 / 3	1.2 - 233	50
SEM/AVS Ratio	0		0.33		SD-23-03-FW	3 / 3	N/A	0.13
Sulfide	9.6		141		SD-23-02-FW	3 / 3	N/A	60
Zinc						0 / 3	4.3 - 43.8	11
Total Combustible Organics (mg/Kg)	4800		427000		SD-23-03-FW	3 / 3	N/A	152033

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-35
SEDIMENT DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	9	4.5
1,1,1-Trichloroethane						0 / 4	13 - 69	14
1,1,2,2-Tetrachloroethane						0 / 4	13 - 23	7.9
1,1,2-Trichloroethane						0 / 4	13 - 23	7.9
1,1-Dichloroethane						0 / 4	13 - 69	14
1,1-Dichloroethene						0 / 4	13 - 69	14
1,2-Dichloroethane						0 / 4	13 - 69	14
1,2-Dichloroethene(total)						0 / 3	13 - 14	6.7
1,2-Dichloropropane						0 / 3	13 - 14	6.7
2-Butanone						0 / 3	13 - 14	6.7
2-Hexanone						0 / 3	13 - 14	6.7
4-Methyl-2-pentanone						0 / 3	13 - 14	6.7
Acetone						0 / 3	13 - 14	6.8
Benzene						0 / 4	9 - 14	6.1
Bromodichloromethane						0 / 3	13 - 14	6.7
Bromoform						0 / 3	13 - 14	6.7
Bromomethane						0 / 3	13 - 14	6.7
Carbon Disulfide						0 / 3	13 - 14	6.7
Carbon Tetrachloride						0 / 3	13 - 14	6.7
Chlorobenzene						0 / 3	13 - 14	6.7
Chloroethane						0 / 3	13 - 14	6.7
Chloroform						0 / 4	13 - 23	7.9
Chloromethane						0 / 3	13 - 14	6.7
cis-1,2-Dichloroethene						0 / 1	23	12
cis-1,3-Dichloropropene						0 / 3	13 - 14	6.7
Dibromochloromethane						0 / 3	13 - 14	6.7
Ethylbenzene						0 / 4	9 - 14	6.1
Methylene chloride						0 / 4	13 - 69	14
Naphthalene						0 / 1	69	35
Styrene						0 / 3	13 - 14	6.7
Tetrachloroethene						0 / 4	13 - 69	14
Toluene						0 / 3	13 - 14	6.7
trans-1,2-Dichloroethene						0 / 1	69	35
trans-1,3-Dichloropropene						0 / 3	13 - 14	6.7
Trichloroethene						0 / 4	13 - 23	7.9
Vinyl chloride						0 / 4	13 - 69	14
Xylene, m/p-						0 / 1	23	12
Xylene, o-						0 / 1	23	12
Xylenes (total)						0 / 3	13 - 14	6.7
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	420 - 2100	497
1,2-Dichlorobenzene						0 / 3	420 - 2100	497
1,3-Dichlorobenzene						0 / 3	420 - 2100	497
1,4-Dichlorobenzene						0 / 3	420 - 2100	497
2,2'-oxybis(1-Chloropropane)						0 / 3	420 - 2100	497
2,4,5-Trichlorophenol						0 / 3	1100 - 5400	1283
2,4,6-Trichlorophenol						0 / 3	420 - 2100	497
2,4-Dichlorophenol						0 / 3	420 - 2100	497
2,4-Dimethylphenol						0 / 3	420 - 2100	497
2,4-Dinitrophenol						0 / 3	1100 - 5400	1283
2,4-Dinitrotoluene						0 / 3	420 - 2100	497
2,6-Dinitrotoluene						0 / 3	420 - 2100	497
2-Chloronaphthalene						0 / 3	420 - 2100	497
2-Chlorophenol						0 / 3	420 - 2100	497
2-Methylnaphthalene	23	J	360	J	SD-24-02-FW	2 / 4	67 - 460	206
2-Methylphenol						0 / 3	420 - 2100	497
2-Nitroaniline						0 / 3	1100 - 5400	1283
2-Nitrophenol						0 / 3	420 - 2100	497
3,3'-Dichlorobenzidine						0 / 3	420 - 2100	497
3-Nitroaniline						0 / 3	1100 - 5400	1283

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TABLE 2-35
SEDIMENT DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 3	1100 - 5400	1283
4-Bromophenyl-phenylether						0 / 3	420 - 2100	497
4-Chloro-3-methylphenol						0 / 3	420 - 2100	497
4-Chloroaniline						0 / 3	420 - 2100	497
4-Chlorophenyl-phenyl ether						0 / 3	420 - 2100	497
4-Methylphenol						0 / 3	420 - 2100	497
4-Nitroaniline						0 / 3	1100 - 5400	1283
4-Nitrophenol						0 / 3	1100 - 5400	1283
Acenaphthene	50	J	1400	J	SD-24-02-FW	3 / 4	67 - 420	445
Acenaphthylene	44	J	800	J	SD-24-02-FW	3 / 4	67 - 420	278
Anthracene	48	J	1900	J	SD-24-02-FW	4 / 4	67	574
Benzo(a)anthracene	440	J	5900		SD-24-02-FW	4 / 4	67	1955
Benzo(a)pyrene	350	J	5500		SD-24-02-FW	4 / 4	67	1760
Benzo(b)fluoranthene	740		10000		SD-24-02-FW	4 / 4	67	3180
Benzo(g,h,i)perylene	210	J	920	J	SD-24-02-FW	3 / 4	67 - 460	478
Benzo(k)fluoranthene	400		9600		SD-24-02-FW	4 / 4	67	2948
bis(2-Chloroethoxy)methane						0 / 3	420 - 2100	497
bis(2-Chloroethyl)ether						0 / 3	420 - 2100	497
bis(2-Ethylhexyl)phthalate	400	J	430	J	SD-24-03-FW	2 / 3	2100	627
Butylbenzylphthalate	47	J	87	J	SD-24-03-FW	2 / 3	2100	395
Carbazole	48	J	990	J	SD-24-02-FW	2 / 3	460	423
Chrysene	520		7300		SD-24-02-FW	4 / 4	67	2323
Di-n-butylphthalate						0 / 3	420 - 2100	497
Di-n-octylphthalate						0 / 3	420 - 2100	497
Dibenz(a,h)anthracene	120	J	500	J	SD-24-02-FW	2 / 4	67 - 460	265
Dibenzofuran	1000	J	1000	J	SD-24-02-FW	1 / 3	420 - 460	480
Diethylphthalate	230	J	230	J	SD-24-02-FW	1 / 3	420 - 460	223
Dimethylphthalate						0 / 3	420 - 2100	497
Fluoranthene	840		15000		SD-24-02-FW	4 / 4	67	4830
Fluorene	44	J	2800		SD-24-02-FW	4 / 4	67	766
Hexachlorobenzene						0 / 3	420 - 2100	497
Hexachlorobutadiene sv						0 / 3	420 - 2100	497
Hexachlorocyclopentadiene						0 / 3	420 - 2100	497
Hexachloroethane						0 / 3	420 - 2100	497
Indeno(1,2,3-cd)pyrene	210	J	1700	J	SD-24-02-FW	3 / 4	67 - 460	690
Isophorone						0 / 3	420 - 2100	497
N-Nitroso-di-n-propylamine						0 / 3	420 - 2100	497
N-nitrosodiphenylamine						0 / 3	420 - 2100	497
Naphthalene	23	J	520	J	SD-24-02-FW	2 / 4	67 - 460	246
Nitrobenzene						0 / 3	420 - 2100	497
Pentachlorophenol						0 / 3	1100 - 5400	1283
Phenanthrene	290	J	12000		SD-24-02-FW	4 / 4	67	3513
Phenol						0 / 3	420 - 2100	497
Pyrene	680		11000		SD-24-02-FW	4 / 4	67	3738
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	3.2	1.6
4,4'-DDD	35		390		SD-24-03-ME	4 / 4	3.2	141
4,4'-DDE	5.8		37		SD-24-03-ME	4 / 4	3.2	17
4,4'-DDT	20		130		SD-24-02-FW	4 / 4	3.2	50
Aldrin	0.29	J	1.6	J	SD-24-02-FW	3 / 4	1.6	0.81
alpha-BHC	0.31	J	0.31	J	SD-24-02-FW	1 / 4	1.6 - 2.4	0.85
alpha-Chlordane	2	J	5.3		SD-24-03-FW	2 / 4	1.6 - 2.4	2.4
Aroclor 1016						0 / 4	3.2 - 46	17
Aroclor 1221						0 / 4	6.4 - 94	34
Aroclor 1232						0 / 4	3.2 - 46	17
Aroclor 1242						0 / 4	3.2 - 46	17
Aroclor 1248	290	J	290	J	SD-24-03-ME	1 / 4	3.2 - 46	89
Aroclor 1254						0 / 4	3.2 - 46	17
Aroclor 1260	200		200		SD-24-03-ME	1 / 4	3.2 - 46	66
beta-BHC	0.4	J	0.4	J	SD-24-01-FW	1 / 4	1.6 - 2.2	0.85

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TABLE 2-35
SEDIMENT DATA SUMMARY - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC						0 / 4	1.6 - 2.4	1.1
Dieldrin	1.5	J	18		SD-24-02-FW	2 / 4	3.2 - 4.2	5.8
Endosulfan I	0.22	J	0.22	J	SD-24-03-FW	1 / 4	1.6 - 2.4	0.83
Endosulfan II	2.3	J	7.1		SD-24-02-FW	2 / 4	3.2 - 4.6	3.3
Endosulfan Sulfate	6.6		6.6		SD-24-01-FW	1 / 4	3.2 - 4.3	3.1
Endrin	0.3	J	5.1		SD-24-02-FW	2 / 4	3.2 - 4.6	2.3
Endrin Aldehyde	1.1	J	5.9	J	SD-24-03-ME	2 / 4	3.2 - 4.6	2.9
Endrin Ketone	2.7	J	4.3		SD-24-02-FW	2 / 4	3.2 - 4.2	2.7
gamma-BHC (Lindane)	1.9	J	1.9	J	SD-24-02-FW	1 / 4	1.6 - 2.4	1.3
gamma-Chlordane	1.5	J	4.6		SD-24-03-FW	3 / 4	1.6 - 2.4	2.9
Heptachlor	0.84	J	0.84	J	SD-24-02-FW	1 / 4	1.6 - 2.4	1.0
Heptachlor Epoxide	0.48	J	1.4	J	SD-24-02-FW	2 / 4	1.6 - 2.4	1.0
Methoxychlor						0 / 4	16 - 24	11
Toxaphene						0 / 4	160 - 240	105
Metals - mg/Kg								
Aluminum	2560		13700		SD-24-03-FW	4 / 4	3.5	7180
Antimony	0.5	J	1.2	J	SD-24-03-ME	2 / 4	0.067 - 1.4	0.66
Arsenic	3.8		40.6		SD-24-03-FW	4 / 4	0.22	20
Barium	13.3		67.3		SD-24-03-FW	4 / 4	0.018	35
Beryllium	0.8	J	1.2		SD-24-03-FW	2 / 4	0.027 - 0.22	0.55
Cadmium	0.22		2		SD-24-03-ME	4 / 4	0.35	0.86
Calcium	610		3030		SD-24-03-FW	4 / 4	1.6	1765
Chromium	10.3	J	410	J	SD-24-03-ME	4 / 4	0.055	179
Cobalt	1.9		12.1	J	SD-24-03-ME	4 / 4	0.37	6.2
Copper	11.6		130		SD-24-03-ME	4 / 4	0.082	61
Cyanide						0 / 3	0.52 - 1.4	0.43
Iron	4790		20900		SD-24-03-FW	4 / 4	0.57	11403
Lead	73.9		581		SD-24-03-FW	4 / 4	0.27	326
Magnesium	1140		4370		SD-24-03-FW	4 / 4	3.5	2560
Manganese	50.4	J	230	J	SD-24-03-FW	4 / 4	0.018	120
Mercury	0.021	J	0.71		SD-24-03-ME	4 / 4	0.005	0.37
Nickel	6		26.1		SD-24-03-FW	4 / 4	0.15	16
Potassium	424		1170	J	SD-24-03-ME	4 / 4	2.7	752
Selenium	0.91	J	2.1		SD-24-03-FW	2 / 4	0.053 - 0.6	0.89
Silver	2.5	J	2.9		SD-24-03-FW	2 / 4	0.01 - 0.3	1.4
Sodium	102		516		SD-24-03-ME	4 / 4	0.22	277
Thallium						0 / 4	0.038 - 2	0.42
Vanadium	7.1		148		SD-24-03-FW	4 / 4	0.073	62
Zinc	47		251	J	SD-24-03-ME	4 / 4	0.16	119
AVS-SEM - mg/Kg								
Arsenic						0 / 1	3.745	1.9
Cadmium	0.13		6.0		SD-24-02-FW	3 / 4	5.6	2.5
Copper	7.2	J	94	J	SD-24-03-FW	3 / 4	3.175	29
Lead	81	J	522	J	SD-24-03-FW	4 / 4	N/A	265
Mercury						0 / 4	0.003 - 10.03	1.3
Nickel	22	J	22	J	SD-24-03-ME	1 / 4	2.4 - 109	24
SEM/AVS Ratio	0.042		18		SD-24-03-FW	4 / 4	N/A	4.7
Sulfide	29		880		SD-24-02-FW	4 / 4	N/A	339
Zinc	38	J	243	J	SD-24-03-ME	4 / 4	N/A	117
Total Combustible Organics (mg/Kg)	2810		183000		SD-24-03-FW	4 / 4	2000	89178

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-36
SEDIMENT DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	5	2.5
1,1,1-Trichloroethane						0 / 4	13 - 36	11
1,1,2,2-Tetrachloroethane						0 / 4	12 - 19	7.8
1,1,2-Trichloroethane						0 / 4	12 - 19	7.8
1,1-Dichloroethane						0 / 4	13 - 36	11
1,1-Dichloroethene						0 / 4	13 - 36	11
1,2-Dichloroethane						0 / 4	13 - 36	11
1,2-Dichloroethene(total)						0 / 3	13 - 19	8.3
1,2-Dichloropropane						0 / 3	13 - 19	8.3
2-Butanone						0 / 3	13 - 19	8.3
2-Hexanone						0 / 3	13 - 19	8.3
4-Methyl-2-pentanone						0 / 3	13 - 19	8.3
Acetone	23	J	51	J	SD-25-02-FW	2 / 3	13	27
Benzene	4	J	4	J	SD-25-02-ME	1 / 4	5 - 19	7.3
Bromodichloromethane						0 / 3	13 - 19	8.3
Bromoform						0 / 3	13 - 19	8.3
Bromomethane						0 / 3	13 - 19	8.3
Carbon Disulfide						0 / 3	13 - 19	8.3
Carbon Tetrachloride						0 / 3	13 - 19	8.3
Chlorobenzene						0 / 3	13 - 19	8.3
Chloroethane						0 / 3	13 - 19	8.3
Chloroform						0 / 4	12 - 19	7.8
Chloromethane						0 / 3	13 - 19	8.3
cis-1,2-Dichloroethene						0 / 1	12	6.0
cis-1,3-Dichloropropene						0 / 3	13 - 19	8.3
Dibromochloromethane						0 / 3	13 - 19	8.3
Ethylbenzene						0 / 4	5 - 19	6.9
Methylene chloride						0 / 4	13 - 36	11
Naphthalene						0 / 1	36	18
Styrene						0 / 3	13 - 19	8.3
Tetrachloroethene						0 / 4	13 - 36	11
Toluene						0 / 3	13 - 19	8.3
trans-1,2-Dichloroethene						0 / 1	36	18
trans-1,3-Dichloropropene						0 / 3	13 - 19	8.3
Trichloroethene						0 / 4	12 - 19	7.8
Vinyl chloride						0 / 4	13 - 36	11
Xylene, m/p-						0 / 1	12	6.0
Xylene, o-						0 / 1	12	6.0
Xylenes (total)						0 / 3	13 - 19	8.3
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	420 - 3100	687
1,2-Dichlorobenzene						0 / 3	420 - 3100	687
1,3-Dichlorobenzene						0 / 3	420 - 3100	687
1,4-Dichlorobenzene						0 / 3	420 - 3100	687
2,2'-oxybis(1-Chloropropane)						0 / 3	420 - 3100	687
2,4,5-Trichlorophenol						0 / 3	1000 - 7400	1650
2,4,6-Trichlorophenol						0 / 3	420 - 3100	687
2,4-Dichlorophenol						0 / 3	420 - 3100	687
2,4-Dimethylphenol						0 / 3	420 - 3100	687
2,4-Dinitrophenol						0 / 3	1000 - 7400	1650
2,4-Dinitrotoluene						0 / 3	420 - 3100	687
2,6-Dinitrotoluene						0 / 3	420 - 3100	687
2-Chloronaphthalene						0 / 3	420 - 3100	687
2-Chlorophenol						0 / 3	420 - 3100	687
2-Methylnaphthalene	22	J	22	J	SD-25-02-ME	1 / 4	67 - 3100	521
2-Methylphenol						0 / 3	420 - 3100	687
2-Nitroaniline						0 / 3	1000 - 7400	1650
2-Nitrophenol						0 / 3	420 - 3100	687
3,3'-Dichlorobenzidine						0 / 3	420 - 3100	687
3-Nitroaniline						0 / 3	1000 - 7400	1650

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TABLE 2-36
SEDIMENT DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 3	1000 - 7400	1650
4-Bromophenyl-phenylether						0 / 3	420 - 3100	687
4-Chloro-3-methylphenol						0 / 3	420 - 3100	687
4-Chloroaniline						0 / 3	420 - 3100	687
4-Chlorophenyl-phenyl ether						0 / 3	420 - 3100	687
4-Methylphenol						0 / 3	420 - 3100	687
4-Nitroaniline						0 / 3	1000 - 7400	1650
4-Nitrophenol						0 / 3	1000 - 7400	1650
Acenaphthene	69	J	69	J	SD-25-02-ME	1 / 4	67 - 3100	532
Acenaphthylene	22	J	22	J	SD-25-02-ME	1 / 4	67 - 3100	521
Anthracene	220	J	330		SD-25-02-ME	2 / 4	67 - 3100	600
Benzo(a)anthracene	510	J	4900	J	SD-25-02-FW	4 / 4	67	1925
Benzo(a)pyrene	410	J	5100	J	SD-25-02-FW	4 / 4	67	1880
Benzo(b)fluoranthene	480	J	5800	J	SD-25-02-FW	4 / 4	67	2175
Benzo(g,h,i)perylene	190	J	2200	J	SD-25-02-FW	4 / 4	67	813
Benzo(k)fluoranthene	630	J	6700	J	SD-25-02-FW	4 / 4	67	2205
bis(2-Chloroethoxy)methane						0 / 3	420 - 3100	687
bis(2-Chloroethyl)ether						0 / 3	420 - 3100	687
bis(2-Ethylhexyl)phthalate						0 / 3	420 - 3100	687
Butylbenzylphthalate						0 / 3	420 - 3100	687
Carbazole	200	J	200	J	SD-25-03-FW	1 / 3	600 - 3100	683
Chrysene	500	J	5400	J	SD-25-02-FW	4 / 4	67	2025
Di-n-butylphthalate	150	J	180	J	SD-25-01-FW	2 / 3	3100	627
Di-n-octylphthalate						0 / 3	420 - 3100	687
Dibenz(a,h)anthracene	130	J	1100	J	SD-25-02-FW	3 / 4	67 - 600	438
Dibenzofuran						0 / 3	420 - 3100	687
Diethylphthalate						0 / 3	420 - 3100	687
Dimethylphthalate						0 / 3	420 - 3100	687
Fluoranthene	1000	J	11000	J	SD-25-02-FW	4 / 4	67	4100
Fluorene	120		120		SD-25-02-ME	1 / 4	67 - 3100	545
Hexachlorobenzene						0 / 3	420 - 3100	687
Hexachlorobutadiene sv						0 / 3	420 - 3100	687
Hexachlorocyclopentadiene						0 / 3	420 - 3100	687
Hexachloroethane						0 / 3	420 - 3100	687
Indeno(1,2,3-cd)pyrene	270	J	3700	J	SD-25-02-FW	4 / 4	67	1263
Isophorone						0 / 3	420 - 3100	687
N-Nitroso-di-n-propylamine						0 / 3	420 - 3100	687
N-nitrosodiphenylamine						0 / 3	420 - 3100	687
Naphthalene	32	J	32	J	SD-25-02-ME	1 / 4	67 - 3100	523
Nitrobenzene						0 / 3	420 - 3100	687
Pentachlorophenol						0 / 3	1000 - 7400	1650
Phenanthrene	450	J	3100	J	SD-25-02-FW	4 / 4	67	1563
Phenol						0 / 3	420 - 3100	687
Pyrene	1300	J	8100	J	SD-25-02-FW	3 / 4	67 - 750	3019
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	0.32	0.16
4,4'-DDD	11	J	11	J	SD-25-02-ME	1 / 4	0.32 - 31	13
4,4'-DDE	4.4	J	4.4	J	SD-25-02-ME	1 / 4	0.32 - 31	11
4,4'-DDT	2.1	J	5.8	J	SD-25-02-FW	2 / 4	0.32 - 30	8.4
Aldrin						0 / 4	0.16 - 16	5.3
alpha-BHC						0 / 4	0.16 - 16	5.3
alpha-Chlordane	1.3	J	8.4	J	SD-25-02-FW	2 / 4	0.16 - 15	5.7
Aroclor 1016						0 / 4	3.2 - 310	103
Aroclor 1221						0 / 4	6.4 - 620	208
Aroclor 1232						0 / 4	3.2 - 310	103
Aroclor 1242						0 / 4	3.2 - 310	103
Aroclor 1248	56	J	56	J	SD-25-02-ME	1 / 4	3.2 - 310	117
Aroclor 1254						0 / 4	3.2 - 310	103
Aroclor 1260	47		47		SD-25-02-ME	1 / 4	3.2 - 310	114
beta-BHC						0 / 4	0.16 - 16	5.3

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TABLE 2-36
SEDIMENT DATA SUMMARY - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC						0 / 4	0.16 - 16	5.3
Dieldrin	6.3	J	6.3	J	SD-25-02-FW	1 / 4	0.32 - 30	8.0
Endosulfan I	7.2	J	66	J	SD-25-02-FW	3 / 4	0.16	21
Endosulfan II	0.33	J	9.4	J	SD-25-02-FW	2 / 4	0.32 - 30	8.8
Endosulfan Sulfate	11	J	11	J	SD-25-02-FW	1 / 4	0.32 - 30	9.2
Endrin	0.98	J	0.98	J	SD-25-02-ME	1 / 4	0.32 - 31	10
Endrin Aldehyde	4.4	J	4.4	J	SD-25-02-ME	1 / 4	0.32 - 31	11
Endrin Ketone	9.1	J	9.1	J	SD-25-02-FW	1 / 4	0.32 - 30	8.7
gamma-BHC (Lindane)						0 / 4	0.16 - 16	5.3
gamma-Chlordane	1.3	J	1.3	J	SD-25-02-ME	1 / 4	0.16 - 16	5.6
Heptachlor						0 / 4	0.16 - 16	5.3
Heptachlor Epoxide	0.36	J	0.36	J	SD-25-02-ME	1 / 4	0.16 - 16	5.3
Methoxychlor						0 / 4	1.6 - 160	53
Toxaphene						0 / 4	16 - 1600	527
Metals - mg/Kg								
Aluminum	7190		13400		SD-25-02-FW	4 / 4	3.4	10138
Antimony	0.64	J	1.7		SD-25-02-FW	3 / 4	0.062 - 0.84	0.90
Arsenic	2.5		16.2		SD-25-02-FW	4 / 4	0.21	7.5
Barium	18		50.5		SD-25-02-FW	4 / 4	0.018	36
Beryllium	0.23		0.52		SD-25-02-FW	4 / 4	0.027	0.37
Cadmium	0.78	J	0.8		SD-25-02-FW	2 / 4	0.0044 - 0.07	0.41
Calcium	1180		4680		SD-25-02-FW	4 / 4	1.6	2805
Chromium	13.4		60.6		SD-25-02-FW	4 / 4	0.053	31
Cobalt	6.1		9.9		SD-25-02-FW	4 / 4	0.36	7.9
Copper	18.4		93.7		SD-25-02-FW	4 / 4	0.08	50
Cyanide						0 / 3	0.65 - 1.1	0.46
Iron	11200	J	19000	J	SD-25-02-FW	4 / 4	0.55	15325
Lead	55	J	755	J	SD-25-02-FW	4 / 4	0.26	337
Magnesium	3000		5350		SD-25-02-FW	4 / 4	0.8	3940
Manganese	87.1	J	190		SD-25-02-ME	4 / 4	0.018	142
Mercury	0.081	J	0.55	J	SD-25-02-FW	4 / 4	0.005	0.23
Nickel	8.7		17.1		SD-25-02-FW	4 / 4	0.14	13
Potassium	804		1690		SD-25-02-FW	4 / 4	2.6	1167
Selenium	3.2	J	3.2	J	SD-25-02-FW	1 / 4	0.049 - 1.1	1.1
Silver	0.2	J	0.2	J	SD-25-02-ME	1 / 4	0.0088 - 0.68	0.23
Sodium						0 / 4	0.21 - 187	55
Thallium	1		2.2		SD-25-02-FW	2 / 4	0.04 - 1.2	0.97
Vanadium	20.4		39.5		SD-25-02-FW	4 / 4	0.071	30
Zinc	35		307		SD-25-02-FW	4 / 4	0.16	146
AVS-SEM - mg/Kg								
Arsenic						0 / 1	3.745	1.9
Cadmium	0.83		0.83		SD-25-02-FW	1 / 4	0.1 - 5.6	0.94
Copper	7.0		7.0		SD-25-02-ME	1 / 4	31.1 - 70.5	22
Lead	38		704		SD-25-02-FW	4 / 4	N/A	308
Mercury	0.030		0.030		SD-25-03-FW	1 / 3	0.004 - 0.01	0.012
Nickel	2.9	J	2.9	J	SD-25-02-ME	1 / 4	94 - 151	50
SEM/AVS Ratio	1.2		4.2		SD-25-02-FW	4 / 4	N/A	2.3
Sulfide	9.6		65		SD-25-02-ME	4 / 4	N/A	35
Zinc	11		137		SD-25-02-FW	4 / 4	N/A	71
Total Combustible Organics (mg/Kg)	59200	J	59200	J	SD-25-02-ME	1 / 1	2000	59200
Total Organic Carbon (mg/Kg)	12000		71600		SD-25-02-FW	3 / 3	N/A	45400

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-37
SEDIMENT DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 3	13 - 18	8.0
1,1,2,2-Tetrachloroethane						0 / 3	13 - 18	8.0
1,1,2-Trichloroethane						0 / 3	13 - 18	8.0
1,1-Dichloroethane						0 / 3	13 - 18	8.0
1,1-Dichloroethene						0 / 3	13 - 18	8.0
1,2-Dichloroethane						0 / 3	13 - 18	8.0
1,2-Dichloroethene(total)						0 / 3	13 - 18	8.0
1,2-Dichloropropane						0 / 3	13 - 18	8.0
2-Butanone	17.5	J	17.5	J	SD-26-02-FW	1 / 3	17 - 18	12
2-Hexanone						0 / 3	13 - 18	8.0
4-Methyl-2-pentanone						0 / 3	13 - 18	8.0
Acetone	45	J	130	J	SD-26-02-FW	3 / 3	N/A	81
Benzene						0 / 3	13 - 18	8.0
Bromodichloromethane						0 / 3	13 - 18	8.0
Bromoform						0 / 3	13 - 18	8.0
Bromomethane						0 / 3	13 - 18	8.0
Carbon Disulfide	3	J	3	J	SD-26-02-FW	1 / 3	17 - 18	6.8
Carbon Tetrachloride						0 / 3	13 - 18	8.0
Chlorobenzene						0 / 3	13 - 18	8.0
Chloroethane						0 / 3	13 - 18	8.0
Chloroform						0 / 3	13 - 18	8.0
Chloromethane						0 / 3	13 - 18	8.0
cis-1,3-Dichloropropene						0 / 3	13 - 18	8.0
Dibromochloromethane						0 / 3	13 - 18	8.0
Ethylbenzene						0 / 3	13 - 18	8.0
Methylene Chloride						0 / 3	13 - 18	8.0
Styrene						0 / 3	13 - 18	8.0
Tetrachloroethene						0 / 3	13 - 18	8.0
Toluene						0 / 3	13 - 18	8.0
trans-1,3-Dichloropropene						0 / 3	13 - 18	8.0
Trichloroethene						0 / 3	13 - 18	8.0
Vinyl Chloride						0 / 3	13 - 18	8.0
Xylenes (total)						0 / 3	13 - 18	8.0
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	440 - 590	265
1,2-Dichlorobenzene						0 / 3	440 - 590	265
1,3-Dichlorobenzene						0 / 3	440 - 590	265
1,4-Dichlorobenzene						0 / 3	440 - 590	265
2,2'-oxybis(1-Chloropropane)						0 / 3	440 - 590	265
2,4,5-Trichlorophenol						0 / 3	1100 - 1400	650
2,4,6-Trichlorophenol						0 / 3	440 - 590	265
2,4-Dichlorophenol						0 / 3	440 - 590	265
2,4-Dimethylphenol						0 / 3	440 - 590	265
2,4-Dinitrophenol						0 / 3	1100 - 1400	650
2,4-Dinitrotoluene						0 / 3	440 - 590	265
2,6-Dinitrotoluene						0 / 3	440 - 590	265
2-Chloronaphthalene						0 / 3	440 - 590	265
2-Chlorophenol						0 / 3	440 - 590	265
2-Methylnaphthalene						0 / 3	440 - 590	265
2-Methylphenol						0 / 3	440 - 590	265
2-Nitroaniline						0 / 3	1100 - 1400	650
2-Nitrophenol						0 / 3	440 - 590	265
3,3'-Dichlorobenzidine						0 / 3	440 - 590	265
3-Nitroaniline						0 / 3	1100 - 1400	650
4,6-Dinitro-2-methylphenol						0 / 3	1100 - 1400	650
4-Bromophenyl-phenylether						0 / 3	440 - 590	265
4-Chloro-3-methylphenol						0 / 3	440 - 590	265
4-Chloroaniline						0 / 3	440 - 590	265
4-Chlorophenyl-phenyl ether						0 / 3	440 - 590	265
4-Methylphenol						0 / 3	440 - 590	265

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TABLE 2-37
SEDIMENT DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Nitroaniline						0 / 3	1100 - 1400	650
4-Nitrophenol						0 / 3	1100 - 1400	650
Acenaphthene						0 / 3	440 - 590	265
Acenaphthylene						0 / 3	440 - 590	265
Anthracene						0 / 3	440 - 590	265
Benzo(a)anthracene						0 / 3	440 - 590	265
Benzo(a)pyrene						0 / 3	440 - 590	265
Benzo(b)fluoranthene	150	J	190	J	SD-26-01-FW	3 / 3	N/A	173
Benzo(g,h,i)perylene						0 / 3	440 - 590	265
Benzo(k)fluoranthene						0 / 3	440 - 590	265
bis(2-Chloroethoxy)methane						0 / 3	440 - 590	265
bis(2-Chloroethyl)ether						0 / 3	440 - 590	265
bis(2-Ethylhexyl)phthalate						0 / 3	440 - 620	275
Butylbenzylphthalate						0 / 3	440 - 590	265
Carbazole						0 / 3	440 - 590	265
Chrysene						0 / 3	440 - 590	265
Di-n-butylphthalate	170	J	240	J	SD-26-03-FW	3 / 3	N/A	197
Di-n-octylphthalate	220	J	220	J	SD-26-02-FW	1 / 3	560 - 590	265
Dibenz(a,h)anthracene						0 / 3	440 - 590	265
Dibenzofuran						0 / 3	440 - 590	265
Diethylphthalate						0 / 3	440 - 590	265
Dimethylphthalate						0 / 3	440 - 590	265
Fluoranthene	190	J	250	J	SD-26-01-FW	3 / 3	N/A	217
Fluorene						0 / 3	440 - 590	265
Hexachlorobenzene						0 / 3	440 - 590	265
Hexachlorobutadiene sv						0 / 3	440 - 590	265
Hexachlorocyclopentadiene						0 / 3	440 - 590	265
Hexachloroethane						0 / 3	440 - 590	265
Indeno(1,2,3-cd)pyrene						0 / 3	440 - 590	265
Isophorone						0 / 3	440 - 590	265
N-Nitroso-di-n-propylamine						0 / 3	440 - 590	265
N-nitrosodiphenylamine						0 / 3	440 - 590	265
Naphthalene						0 / 3	440 - 590	265
Nitrobenzene						0 / 3	440 - 590	265
Pentachlorophenol						0 / 3	1100 - 1400	650
Phenanthrene						0 / 3	440 - 590	265
Phenol						0 / 3	440 - 590	265
Pyrene						0 / 3	440 - 590	265
PCBs/Pesticides - ug/Kg								
4,4'-DDD	16.5	J	59	J	SD-26-01-FW	3 / 3	N/A	31
4,4'-DDE	9.5	J	51	J	SD-26-01-FW	3 / 3	N/A	24
4,4'-DDT	17.85	J	30	J	SD-26-01-FW	2 / 3	29	21
Aldrin						0 / 3	11 - 15	6.7
alpha-BHC						0 / 3	11 - 15	6.7
alpha-Chlordane						0 / 3	11 - 15	6.7
Aroclor 1016						0 / 3	220 - 290	132
Aroclor 1221						0 / 3	450 - 600	270
Aroclor 1232						0 / 3	220 - 290	132
Aroclor 1242						0 / 3	220 - 290	132
Aroclor 1248						0 / 3	220 - 290	132
Aroclor 1254						0 / 3	220 - 290	132
Aroclor 1260						0 / 3	220 - 290	132
beta-BHC						0 / 3	11 - 15	6.7
delta-BHC						0 / 3	11 - 15	6.7

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TABLE 2-37
SEDIMENT DATA SUMMARY - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 3	22 - 29	13
Endosulfan I	6.9	J	6.9	J	SD-26-03-FW	1 / 3	11 - 14	6.5
Endosulfan II						0 / 3	22 - 29	13
Endosulfan sulfate						0 / 3	22 - 29	13
Endrin						0 / 3	22 - 29	13
Endrin aldehyde						0 / 3	22 - 29	13
Endrin ketone						0 / 3	22 - 29	13
gamma-BHC (Lindane)						0 / 3	11 - 15	6.7
gamma-Chlordane	1	J	1	J	SD-26-02-FW	1 / 3	14 - 15	5.2
Heptachlor						0 / 3	11 - 15	6.7
Heptachlor epoxide						0 / 3	11 - 15	6.7
Methoxychlor						0 / 3	110 - 150	67
Toxaphene						0 / 3	1100 - 1500	667
Metals - mg/Kg								
Aluminum	8345		13500		SD-26-01-FW	3 / 3	N/A	10075
Antimony	0.7	J	0.81	J	SD-26-02-FW	2 / 3	0.79	0.64
Arsenic	4.75		9.4		SD-26-01-FW	3 / 3	N/A	6.4
Barium	35.7		73.1		SD-26-01-FW	3 / 3	N/A	51
Beryllium	0.255		0.51		SD-26-01-FW	3 / 3	N/A	0.37
Cadmium						0 / 3	0.04 - 0.23	0.059
Calcium	1205		1860		SD-26-01-FW	3 / 3	N/A	1455
Chromium	8.9		32.6		SD-26-01-FW	3 / 3	N/A	21
Cobalt	3.7		8		SD-26-01-FW	3 / 3	N/A	5.9
Copper	10		42.9		SD-26-01-FW	3 / 3	N/A	23
Cyanide						0 / 3	0.66 - 0.87	0.40
Iron	8810		17100		SD-26-01-FW	3 / 3	N/A	12803
Lead	25.3	J	103	J	SD-26-01-FW	3 / 3	N/A	57
Magnesium	1430		5100		SD-26-01-FW	3 / 3	N/A	3553
Manganese	134		315		SD-26-01-FW	3 / 3	N/A	224
Mercury						0 / 3	0.014 - 0.08	0.019
Nickel	5.9		18.9		SD-26-01-FW	3 / 3	N/A	13
Potassium	249		2410		SD-26-01-FW	3 / 3	N/A	1656
Selenium						0 / 3	0.59 - 0.99	0.40
Silver						0 / 3	0.3 - 0.49	0.20
Sodium						0 / 3	51.4 - 85.5	34
Thallium						0 / 3	0.89 - 1.2	0.50
Vanadium	18.8		37.6		SD-26-01-FW	3 / 3	N/A	26
Zinc	44.1		82.8		SD-26-01-FW	3 / 3	N/A	57
AVS-SEM - mg/Kg								
Cadmium	0.11		0.22		SD-26-03-FW	3 / 3	N/A	0.18
Copper						0 / 3	16.6 - 28.7	12
Lead	31		81		SD-26-01-FW	3 / 3	N/A	59
Mercury	0.0040		0.0040		SD-26-02-FW	1 / 3	0.005	0.0030
Nickel						0 / 3	9.8 - 92.8	21
SEM/AVS Ratio	0.089		0.17		SD-26-03-FW	3 / 3	N/A	0.12
Sulfide	205		437		SD-26-01-FW	3 / 3	N/A	300
Zinc	37		63		SD-26-01-FW	3 / 3	N/A	50
Total Organic Carbon (mg/Kg)	12050		47200		SD-26-03-FW	3 / 3	N/A	32017

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-38
SEDIMENT DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 3	13 - 14	6.7
1,1,2,2-Tetrachloroethane						0 / 3	13 - 14	6.7
1,1,2-Trichloroethane						0 / 3	13 - 14	6.7
1,1-Dichloroethane						0 / 3	13 - 14	6.7
1,1-Dichloroethene						0 / 3	13 - 14	6.7
1,2-Dichloroethane						0 / 3	13 - 14	6.7
1,2-Dichloroethene(total)						0 / 3	13 - 14	6.7
1,2-Dichloropropane						0 / 3	13 - 14	6.7
2-Butanone						0 / 3	13 - 14	6.7
2-Hexanone						0 / 3	13 - 14	6.7
4-Methyl-2-pentanone						0 / 3	13 - 14	6.7
Acetone	44	J	57	J	SD-27-03-FW	2 / 3	13	36
Benzene						0 / 3	13 - 14	6.7
Bromodichloromethane						0 / 3	13 - 14	6.7
Bromoform						0 / 3	13 - 14	6.7
Bromomethane						0 / 3	13 - 14	6.7
Carbon Disulfide	3	J	3	J	SD-27-03-FW	1 / 3	13 - 14	5.5
Carbon Tetrachloride						0 / 3	13 - 14	6.7
Chlorobenzene						0 / 3	13 - 14	6.7
Chloroethane						0 / 3	13 - 14	6.7
Chloroform						0 / 3	13 - 14	6.7
Chloromethane						0 / 3	13 - 14	6.7
cis-1,3-Dichloropropene						0 / 3	13 - 14	6.7
Dibromochloromethane						0 / 3	13 - 14	6.7
Ethylbenzene						0 / 3	13 - 14	6.7
Methylene Chloride						0 / 3	13 - 14	6.7
Styrene						0 / 3	13 - 14	6.7
Tetrachloroethene						0 / 3	13 - 14	6.7
Toluene						0 / 3	13 - 14	6.7
trans-1,3-Dichloropropene						0 / 3	13 - 14	6.7
Trichloroethene						0 / 3	13 - 14	6.7
Vinyl Chloride						0 / 3	13 - 14	6.7
Xylenes (total)						0 / 3	13 - 14	6.7
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	420 - 470	220
1,2-Dichlorobenzene						0 / 3	420 - 470	220
1,3-Dichlorobenzene						0 / 3	420 - 470	220
1,4-Dichlorobenzene						0 / 3	420 - 470	220
2,2'-oxybis(1-Chloropropane)						0 / 3	420 - 470	220
2,4,5-Trichlorophenol						0 / 3	1000 - 1100	533
2,4,6-Trichlorophenol						0 / 3	420 - 470	220
2,4-Dichlorophenol						0 / 3	420 - 470	220
2,4-Dimethylphenol						0 / 3	420 - 470	220
2,4-Dinitrophenol						0 / 3	1000 - 1100	533
2,4-Dinitrotoluene						0 / 3	420 - 470	220
2,6-Dinitrotoluene						0 / 3	420 - 470	220
2-Chloronaphthalene						0 / 3	420 - 470	220
2-Chlorophenol						0 / 3	420 - 470	220
2-Methylnaphthalene						0 / 3	420 - 470	220
2-Methylphenol						0 / 3	420 - 470	220
2-Nitroaniline						0 / 3	1000 - 1100	533
2-Nitrophenol						0 / 3	420 - 470	220
3,3'-Dichlorobenzidine						0 / 3	420 - 470	220
3-Nitroaniline						0 / 3	1000 - 1100	533
4,6-Dinitro-2-methylphenol						0 / 3	1000 - 1100	533
4-Bromophenyl-phenylether						0 / 3	420 - 470	220
4-Chloro-3-methylphenol						0 / 3	420 - 470	220
4-Chloroaniline						0 / 3	420 - 470	220
4-Chlorophenyl-phenyl ether						0 / 3	420 - 470	220
4-Methylphenol						0 / 3	420 - 470	220

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TABLE 2-38
SEDIMENT DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Nitroaniline						0 / 3	1000 - 1100	533
4-Nitrophenol						0 / 3	1000 - 1100	533
Acenaphthene	290	J	290	J	SD-27-01-FW	1 / 3	420 - 430	238
Acenaphthylene	350	J	350	J	SD-27-02-FW	1 / 3	430 - 470	267
Anthracene	300	J	990	J	SD-27-01-FW	2 / 3	430	502
Benzo(a)anthracene	520	J	2400	J	SD-27-01-FW	3 / 3	N/A	1473
Benzo(a)pyrene	310	J	930	J	SD-27-01-FW	3 / 3	N/A	690
Benzo(b)fluoranthene	370	J	1500	J	SD-27-01-FW	3 / 3	N/A	940
Benzo(g,h,i)perylene						0 / 3	420 - 470	220
Benzo(k)fluoranthene	540	J	1500	J	SD-27-01-FW	3 / 3	N/A	1147
bis(2-Chloroethoxy)methane						0 / 3	420 - 470	220
bis(2-Chloroethyl)ether						0 / 3	420 - 470	220
bis(2-Ethylhexyl)phthalate						0 / 3	420 - 470	220
Butylbenzylphthalate						0 / 3	420 - 470	220
Carbazole	130	J	520	J	SD-27-01-FW	2 / 3	430	288
Chrysene	510	J	2000	J	SD-27-01-FW	3 / 3	N/A	1303
Di-n-butylphthalate	160	J	160	J	SD-27-02-FW	1 / 3	430 - 470	203
Di-n-octylphthalate						0 / 3	420 - 470	220
Dibenz(a,h)anthracene	210	J	210	J	SD-27-01-FW	2 / 3	430	212
Dibenzofuran	210	J	210	J	SD-27-01-FW	1 / 3	420 - 430	212
Diethylphthalate						0 / 3	420 - 470	220
Dimethylphthalate						0 / 3	420 - 470	220
Fluoranthene	1300	J	5500	J	SD-27-01-FW	3 / 3	N/A	3400
Fluorene	180	J	620	J	SD-27-01-FW	2 / 3	430	338
Hexachlorobenzene						0 / 3	420 - 470	220
Hexachlorobutadiene sv						0 / 3	420 - 470	220
Hexachlorocyclopentadiene						0 / 3	420 - 470	220
Hexachloroethane						0 / 3	420 - 470	220
Indeno(1,2,3-cd)pyrene	160	J	500	J	SD-27-02-FW	3 / 3	N/A	370
Isophorone						0 / 3	420 - 470	220
N-Nitroso-di-n-propylamine						0 / 3	420 - 470	220
N-nitrosodiphenylamine						0 / 3	420 - 470	220
Naphthalene						0 / 3	420 - 470	220
Nitrobenzene						0 / 3	420 - 470	220
Pentachlorophenol						0 / 3	1000 - 1100	533
Phenanthrene	730	J	4500	J	SD-27-01-FW	3 / 3	N/A	2243
Phenol						0 / 3	420 - 470	220
Pyrene	2400	J	3400	J	SD-27-01-FW	2 / 3	890	2082
PCBs/Pesticides - ug/Kg								
4,4'-DDD	5.7	J	6.2	J	SD-27-03-FW	2 / 3	21	7.5
4,4'-DDE	3.5	J	5.5	J	SD-27-01-FW	3 / 3	N/A	4.5
4,4'-DDT	5.6	J	15	J	SD-27-01-FW	3 / 3	N/A	12
Aldrin						0 / 3	11 - 12	5.7
alpha-BHC						0 / 3	11 - 12	5.7
alpha-Chlordane						0 / 3	11 - 12	5.7
Aroclor 1016						0 / 3	210 - 240	112
Aroclor 1221						0 / 3	430 - 480	225
Aroclor 1232						0 / 3	210 - 240	112
Aroclor 1242						0 / 3	210 - 240	112
Aroclor 1248						0 / 3	210 - 240	112
Aroclor 1254						0 / 3	210 - 240	112
Aroclor 1260						0 / 3	210 - 240	112
beta-BHC						0 / 3	11 - 12	5.7
delta-BHC						0 / 3	11 - 12	5.7

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TABLE 2-38
SEDIMENT DATA SUMMARY - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	2.2	J	4.7	J	SD-27-02-FW	2 / 3	24	6.3
Endosulfan I	7.2	J	35	J	SD-27-02-FW	3 / 3	N/A	17
Endosulfan II	5.3	J	5.3	J	SD-27-02-FW	1 / 3	22 - 24	9.4
Endosulfan sulfate	9.1	J	9.1	J	SD-27-02-FW	1 / 3	22 - 24	11
Endrin						0 / 3	21 - 24	11
Endrin aldehyde						0 / 3	21 - 24	11
Endrin ketone	6.1	J	6.1	J	SD-27-02-FW	1 / 3	22 - 24	9.7
gamma-BHC (Lindane)						0 / 3	11 - 12	5.7
gamma-Chlordane						0 / 3	11 - 12	5.7
Heptachlor						0 / 3	11 - 12	5.7
Heptachlor epoxide						0 / 3	11 - 12	5.7
Methoxychlor						0 / 3	110 - 120	57
Toxaphene						0 / 3	1100 - 1200	567
Metals - mg/Kg								
Aluminum	3690		5050		SD-27-03-FW	3 / 3	N/A	4347
Antimony	0.56	J	0.56	J	SD-27-03-FW	1 / 3	0.43 - 0.64	0.37
Arsenic	4.1		6.8		SD-27-01-FW	3 / 3	N/A	5.3
Barium	16.6		30.9		SD-27-01-FW	3 / 3	N/A	23
Beryllium	0.15		0.21		SD-27-01-FW	3 / 3	N/A	0.19
Cadmium	0.4		0.4		SD-27-01-FW	1 / 3	0.053 - 0.16	0.17
Calcium	1020		1310		SD-27-01-FW	3 / 3	N/A	1163
Chromium	9		15.1		SD-27-03-FW	3 / 3	N/A	13
Cobalt	3.5		5.8		SD-27-01-FW	3 / 3	N/A	4.7
Copper	6.8		8.1		SD-27-01-FW	3 / 3	N/A	7.3
Cyanide						0 / 3	0.59 - 0.76	0.33
Iron	7640		7990		SD-27-02-FW	3 / 3	N/A	7780
Lead	17.9	J	28	J	SD-27-02-FW	3 / 3	N/A	22
Magnesium	1500		2390		SD-27-03-FW	3 / 3	N/A	1993
Manganese	183		297		SD-27-01-FW	3 / 3	N/A	242
Mercury						0 / 3	0.0095 - 0.016	0.0061
Nickel	6.6		10.3		SD-27-03-FW	3 / 3	N/A	8.6
Potassium	516		711		SD-27-02-FW	3 / 3	N/A	621
Selenium						0 / 3	0.53 - 0.8	0.32
Silver						0 / 3	0.27 - 0.4	0.16
Sodium						0 / 3	46.2 - 69.3	28
Thallium						0 / 3	0.62 - 0.93	0.37
Vanadium	9.3		11.3		SD-27-02-FW	3 / 3	N/A	10
Zinc	33		112		SD-27-03-FW	3 / 3	N/A	68
AVS-SEM - mg/Kg								
Cadmium	0.17		0.39		SD-27-01-FW	2 / 3	0.09	0.20
Copper						0 / 3	4.8 - 40.2	10
Lead	16		18		SD-27-03-FW	3 / 3	N/A	17
Mercury						0 / 3	0.003 - 0.004	0.0018
Nickel						0 / 3	3.4 - 88.7	24
SEM/AVS Ratio	0.071		0.60		SD-27-02-FW	3 / 3	N/A	0.25
Sulfide	19		526		SD-27-03-FW	3 / 3	N/A	331
Zinc	18		74		SD-27-03-FW	3 / 3	N/A	50
Total Organic Carbon (mg/Kg)	7650		13400		SD-27-01-FW	3 / 3	N/A	10350

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-39
SEDIMENT DATA SUMMARY - STATION 01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 2	10 - 55	16.3
1,1,2,2-Tetrachloroethane						0 / 1	10	5.0
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	55	27.5
1,1,2-Trichloroethane						0 / 1	10	5.0
1,1-Dichloroethane						0 / 1	10	5.0
1,1-Dichloroethene						0 / 1	10	5.0
1,2-Dichloroethane						0 / 1	10	5.0
1,2-Dichloropropane						0 / 1	10	5.0
2-Butanone						0 / 1	10	5.0
2-Hexanone						0 / 1	10	5
Acetone	120	J	120	J	SD-MC-01	1 / 2	55 - 220	115.0
Benzene						0 / 1	10	5.0
Bromodichloromethane						0 / 1	10	5.0
Bromoform						0 / 1	10	5.0
Bromomethane						0 / 1	10	5.0
Carbon Disulfide						0 / 1	10	5.0
Carbon Tetrachloride						0 / 1	10	5.0
Chlorobenzene						0 / 1	10	5.0
Chloroethane						0 / 1	10	5.0
Chloroform						0 / 1	10	5.0
Chloromethane						0 / 1	10	5.0
cis-1,2-Dichloroethene						0 / 1	10	5.0
cis-1,3-Dichloropropene						0 / 1	10	5.0
Dibromochloromethane						0 / 1	10	5.0
Ethylbenzene						0 / 1	10	5.0
Methyl Acetate	210		210		SD-MC-01-TR	1 / 1	55	210
Methyl isobutyl ketone (MIBK)						0 / 1	10	5.0
Methylene Chloride						0 / 2	24 - 63	21.8
Styrene						0 / 1	10	5.0
Tetrachloroethene						0 / 1	10	5.0
Toluene	7.9	J	7.9	J	SD-MC-01-TR	1 / 2	10 - 55	6.5
trans-1,2-Dichloroethene						0 / 1	10	5.0
trans-1,3-Dichloropropene						0 / 1	10	5.0
Trichloroethene						0 / 1	10	5.0
Vinyl chloride						0 / 1	10	5.0
Xylene, m/p-						0 / 1	19	10
Xylene, o-						0 / 1	10	5.0
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	380	190
1,2,4-Trichlorobenzene sv						0 / 1	300	150
1,2-Dichlorobenzene						0 / 1	300	150
1,3-Dichlorobenzene						0 / 1	300	150
1,4-Dichlorobenzene						0 / 1	300	150
2,2'-oxybis(1-Chloropropane)						0 / 1	380	190
2,4,5-Trichlorophenol						0 / 2	760 - 950	428
2,4,6-Trichlorophenol						0 / 2	300 - 380	170
2,4-Dichlorophenol						0 / 2	300 - 380	170
2,4-Dimethylphenol						0 / 2	300 - 380	170
2,4-Dinitrophenol						0 / 2	760 - 950	428
2,4-Dinitrotoluene						0 / 2	300 - 380	170
2,6-Dinitrotoluene						0 / 2	300 - 380	170
2-Chloronaphthalene						0 / 2	300 - 380	170
2-Chlorophenol						0 / 2	300 - 380	170
2-Methylnaphthalene						0 / 2	300 - 380	170
2-Methylphenol						0 / 2	300 - 380	170
2-Nitroaniline						0 / 2	760 - 950	428
2-Nitrophenol						0 / 2	300 - 380	170
3,3'-Dichlorobenzidine						0 / 2	300 - 380	170

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SEDIMENT DATA SUMMARY - STATION 01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3+4-Methylphenols						0 / 1	380	190
3-Nitroaniline						0 / 2	300 - 380	170
4,6-Dinitro-2-methylphenol						0 / 2	760 - 950	428
4-Bromophenyl-phenylether						0 / 2	300 - 380	170
4-Chloro-3-methylphenol						0 / 2	300 - 380	170
4-Chloroaniline						0 / 2	300 - 380	170
4-Chlorophenyl-phenyl ether						0 / 2	300 - 380	170
4-Methylphenol	190	J	190	J	SD-MC-01	1 / 1	N/A	190
4-Nitroaniline						0 / 2	760 - 950	428
4-Nitrophenol						0 / 2	760 - 950	428
Acenaphthene						0 / 2	300 - 380	170
Acenaphthylene	150	J	150	J	SD-MC-01	1 / 2	380	170
Acetophenone						0 / 1	380	190
Anthracene	150	J	150	J	SD-MC-01	1 / 2	380	170
Atrazine						0 / 1	380	190
Benzaldehyde						0 / 1	380	190
Benzo(a)anthracene	210	J	640		SD-MC-01	2 / 2	380	425
Benzo(a)pyrene	250	J	810		SD-MC-01	2 / 2	380	530
Benzo(b)fluoranthene	310	J	920		SD-MC-01	2 / 2	380	615
Benzo(g,h,i)perylene	500		500		SD-MC-01	1 / 2	380	345
Benzo(k)fluoranthene	840		840		SD-MC-01	1 / 2	380	515
bis(2-Chloroethoxy)methane						0 / 2	300 - 380	170
bis(2-Chloroethyl)ether						0 / 2	300 - 380	170
bis(2-chloroisopropyl)ether						0 / 1	300	150
bis(2-Ethylhexyl)phthalate	94	J	94	J	SD-MC-01	1 / 2	380	142
Butylbenzylphthalate						0 / 2	300 - 380	170
Caprolactam						0 / 1	380	190
Carbazole						0 / 2	300 - 380	170
Chrysene	250	J	1100		SD-MC-01	2 / 2	380	675
Dibenz(a,h)anthracene	110	J	110	J	SD-MC-01	1 / 2	380	150
Dibenzofuran						0 / 2	300 - 380	170
Diethylphthalate						0 / 2	300 - 380	170
Dimethylphthalate						0 / 2	300 - 380	170
Di-n-butylphthalate						0 / 2	300 - 380	170
Di-n-octylphthalate						0 / 2	300 - 380	170
Fluoranthene	400		1500		SD-MC-01	2 / 2	380	950
Fluorene						0 / 2	300 - 380	170
Hexachlorobenzene						0 / 2	300 - 380	170
Hexachlorobutadiene sv						0 / 2	300 - 380	170
Hexachlorocyclopentadiene						0 / 2	380 - 760	285
Hexachloroethane						0 / 2	300 - 380	170
Indeno(1,2,3-cd)pyrene	530		530		SD-MC-01	1 / 2	380	360
Isophorone						0 / 2	300 - 380	170
Naphthalene						0 / 2	300 - 380	170
Nitrobenzene						0 / 2	300 - 380	170
N-Nitroso-di-n-propylamine						0 / 2	300 - 380	170
N-nitrosodiphenylamine						0 / 2	300 - 380	170
Pentachlorophenol						0 / 2	760 - 950	428
Phenanthrene	220	J	850		SD-MC-01	2 / 2	380	535
Phenol						0 / 2	300 - 380	170
Pyrene	440		1700		SD-MC-01	2 / 2	380	1070
PCBs/Pesticides - ug/Kg								
4,4'-DDD	5.7		200	J	SD-MC-01	2 / 2	3.1	103
4,4'-DDE	11		470	J	SD-MC-01	2 / 2	3.1	241
4,4'-DDT	3	J	180	J	SD-MC-01	2 / 2	3.1	92
Aldrin						0 / 2	0.76 - 1.6	0.59
Alpha-BHC						0 / 2	0.76 - 1.6	0.59
alpha-Chlordane	23	J	23	J	SD-MC-01	1 / 2	1.6	12
Aroclor 1016						0 / 2	3 - 31	8.5
Aroclor 1221						0 / 2	3 - 63	16.5
Aroclor 1232						0 / 2	3 - 31	8.5
Aroclor 1242						0 / 2	3 - 31	8.5
Aroclor 1248						0 / 2	3 - 31	8.5
Aroclor 1254						0 / 2	3 - 31	8.5
Aroclor 1260						0 / 2	3 - 31	8.5
beta-BHC						0 / 2	0.76 - 1.6	0.59
delta-BHC						0 / 2	0.76 - 1.6	0.59

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TABLE 2-39
SEDIMENT DATA SUMMARY - STATION 01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 2	0.76 - 3.1	0.97
Endosulfan I						0 / 2	0.76 - 1.6	0.59
Endosulfan II						0 / 2	0.76 - 3.1	0.97
Endosulfan sulfate						0 / 2	0.76 - 3.1	0.97
Endrin						0 / 2	0.76 - 3.1	0.97
Endrin Aldehyde						0 / 1	3.1	1.55
Endrin ketone						0 / 2	0.76 - 3.1	0.97
gamma-BHC (Lindane)						0 / 2	0.76 - 1.6	0.59
gamma-Chlordane						0 / 2	0.76 - 1.6	0.59
Heptachlor						0 / 2	0.76 - 1.6	0.59
Heptachlor epoxide						0 / 2	0.76 - 1.6	0.6
Methoxychlor						0 / 2	3.8 - 16	5.0
Toxaphene						0 / 2	7.6 - 160	41.9
Metals - mg/Kg								
Aluminum	4740		8560		SD-MC-01-TR	2 / 2	9.14	6650
Antimony	0.81	J	1.4	J	SD-MC-01-TR	2 / 2	0.74	1.11
Arsenic	12.2		27.8		SD-MC-01-TR	2 / 2	1	20
Barium	59		95.7		SD-MC-01-TR	2 / 2	0.4	77
Beryllium	0.39	J	0.71	J	SD-MC-01-TR	2 / 2	0.2	0.55
Cadmium	0.5		2.2		SD-MC-01-TR	2 / 2	0.6	1.35
Calcium	10900		10900		SD-MC-01-TR	1 / 1	2.14	10900
Chromium	12.2	J	28.4		SD-MC-01-TR	2 / 2	1	20.3
Cobalt	6.4		8.3	J	SD-MC-01-TR	2 / 2	0.36	7
Copper	31.6		70.8		SD-MC-01-TR	2 / 2	0.44	51
Iron	11700		19400		SD-MC-01-TR	2 / 2	1.4	15550
Lead	188		252		SD-MC-01-TR	2 / 2	0.6	220
Magnesium	2570		2570		SD-MC-01-TR	1 / 1	15.18	2570.00
Manganese	225		396		SD-MC-01	2 / 2	0.24	310.5
Mercury	0.03	J	0.31		SD-MC-01	2 / 2	0.02	0.17
Nickel	9.2		16.6		SD-MC-01-TR	2 / 2	0.8	12.90
Potassium	547	J	547	J	SD-MC-01-TR	1 / 1	4.38	547.00
Selenium	0.94	J	0.94	J	SD-MC-01	1 / 2	1	0.72
Silver	0.085	J	0.085	J	SD-MC-01	1 / 2	1	0.29
Sodium	334		334		SD-MC-01-TR	1 / 1	98.04	334.000
Thallium						0 / 2	0.36 - 1.1	0.37
Vanadium	20		38.2		SD-MC-01-TR	2 / 2	0.64	29
Zinc	131		282	J	SD-MC-01-TR	2 / 2	1.7	207
AVS-SEM - mg/Kg								
Cadmium	1.0		1.1		SD-MC-01-TR	2 / 2	N/A	1.1
Copper	12		32		SD-MC-01-TR	2 / 2	N/A	22
Lead	125		133		SD-MC-01	2 / 2	N/A	129
Mercury	0.040	J	0.040	J	SD-MC-01-TR	1 / 1	N/A	0.040
Nickel	8.2		8.2		SD-MC-01-TR	1 / 2	16.4332	8.2
SEM/AVS Ratio	0.35	J	4.3		SD-MC-01-TR	2 / 2	N/A	2.3
Sulfide	26	J	238	J	SD-MC-01	2 / 2	N/A	132
Zinc	118		144	J	SD-MC-01-TR	2 / 2	N/A	131
Total Organic Carbon	160000	J	270000		SD-MC-01-TR	2 / 2	250	215000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-40
SEDIMENT DATA SUMMARY - STATION 02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	25	13
1,1,2,2-Tetrachloroethane						0 / 1	25	13
1,1,2-Trichloroethane						0 / 1	25	13
1,1-Dichloroethane						0 / 1	25	13
1,1-Dichloroethene						0 / 1	25	13
1,2-Dichloroethane						0 / 1	25	13
1,2-Dichloropropane						0 / 1	25	13
2-Butanone	680		680		SD-MC-02	1 / 1	N/A	680
2-Hexanone						0 / 1	25	13
Acetone	2200	J	2200	J	SD-MC-02	1 / 1	N/A	2200
Benzene						0 / 1	25	13
Bromodichloromethane						0 / 1	25	13
Bromoform						0 / 1	25	13
Bromomethane						0 / 1	25	13
Carbon Disulfide						0 / 1	25	13
Carbon Tetrachloride						0 / 1	25	13
Chlorobenzene						0 / 1	25	13
Chloroethane						0 / 1	25	13
Chloroform						0 / 1	25	13
Chloromethane						0 / 1	25	13
cis-1,2-Dichloroethene						0 / 1	25	13
cis-1,3-Dichloropropene						0 / 1	25	13
Dibromochloromethane						0 / 1	25	13
Ethylbenzene						0 / 1	25	13
Methyl isobutyl ketone (MIBK)						0 / 1	25	13
Methylene Chloride						0 / 1	63	32
Styrene						0 / 1	25	13
Tetrachloroethene						0 / 1	25	13
Toluene						0 / 1	25	13
trans-1,2-Dichloroethene						0 / 1	25	13
trans-1,3-Dichloropropene						0 / 1	25	13
Trichloroethene						0 / 1	25	13
Vinyl chloride						0 / 1	25	13
Xylene, m/p-						0 / 1	50	25
Xylene, o-						0 / 1	25	13
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 1	1000	500
1,2-Dichlorobenzene						0 / 1	1000	500
1,3-Dichlorobenzene						0 / 1	1000	500
1,4-Dichlorobenzene						0 / 1	1000	500
2,4,5-Trichlorophenol						0 / 1	2600	1300
2,4,6-Trichlorophenol						0 / 1	1000	500
2,4-Dichlorophenol						0 / 1	1000	500
2,4-Dimethylphenol						0 / 1	1000	500
2,4-Dinitrophenol						0 / 1	2600	1300
2,4-Dinitrotoluene						0 / 1	1000	500
2,6-Dinitrotoluene						0 / 1	1000	500
2-Chloronaphthalene						0 / 1	1000	500
2-Chlorophenol						0 / 1	1000	500
2-Methylnaphthalene						0 / 1	1000	500
2-Methylphenol						0 / 1	1000	500
2-Nitroaniline						0 / 1	2600	1300
2-Nitrophenol						0 / 1	1000	500
3,3'-Dichlorobenzidine						0 / 1	1000	500
3-Nitroaniline						0 / 1	1000	500
4,6-Dinitro-2-methylphenol						0 / 1	2600	1300
4-Bromophenyl-phenylether						0 / 1	1000	500
4-Chloro-3-methylphenol						0 / 1	1000	500
4-Chloroaniline						0 / 1	1000	500
4-Chlorophenyl-phenyl ether						0 / 1	1000	500
4-Methylphenol						0 / 1	1000	500
4-Nitroaniline						0 / 1	2600	1300
4-Nitrophenol						0 / 1	2600	1300

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SEDIMENT DATA SUMMARY - STATION 02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Acenaphthene						0 / 1	1000	500
Acenaphthylene						0 / 1	1000	500
Anthracene						0 / 1	1000	500
Benzo(a)anthracene						0 / 1	1000	500
Benzo(a)pyrene						0 / 1	1000	500
Benzo(b)fluoranthene						0 / 1	1000	500
Benzo(g,h,i)perylene						0 / 1	1000	500
Benzo(k)fluoranthene						0 / 1	1000	500
bis(2-Chloroethoxy)methane						0 / 1	1000	500
bis(2-Chloroethyl)ether						0 / 1	1000	500
bis(2-chloroisopropyl)ether						0 / 1	1000	500
bis(2-Ethylhexyl)phthalate						0 / 1	1000	500
Butylbenzylphthalate						0 / 1	1000	500
Carbazole						0 / 1	1000	500
Chrysene						0 / 1	1000	500
Di-n-butylphthalate						0 / 1	1000	500
Di-n-octylphthalate						0 / 1	1000	500
Dibenz(a,h)anthracene						0 / 1	1000	500
Dibenzofuran						0 / 1	1000	500
Diethylphthalate						0 / 1	1000	500
Dimethylphthalate						0 / 1	1000	500
Fluoranthene						0 / 1	1000	500
Fluorene						0 / 1	1000	500
Hexachlorobenzene						0 / 1	1000	500
Hexachlorobutadiene sv						0 / 1	1000	500
Hexachlorocyclopentadiene						0 / 1	2600	1300
Hexachloroethane						0 / 1	1000	500
Indeno(1,2,3-cd)pyrene						0 / 1	1000	500
Isophorone						0 / 1	1000	500
N-Nitroso-di-n-propylamine						0 / 1	1000	500
N-nitrosodiphenylamine						0 / 1	1000	500
Naphthalene						0 / 1	1000	500
Nitrobenzene						0 / 1	1000	500
Pentachlorophenol						0 / 1	2600	1300
Phenanthrene						0 / 1	1000	500
Phenol						0 / 1	1000	500
Pyrene						0 / 1	1000	500
PCBs/Pesticides - ug/Kg								
4,4'-DDD	25	J	25	J	SD-MC-02	1 / 1	N/A	25
4,4'-DDE	13		13		SD-MC-02	1 / 1	N/A	13
4,4'-DDT						0 / 1	2.6	1.3
Aldrin						0 / 1	2.6	1.3
Alpha-BHC						0 / 1	2.6	1.3
alpha-Chlordane						0 / 1	2.6	1.3
Aroclor 1016						0 / 1	10.4	5.2
Aroclor 1221						0 / 1	10.4	5.2
Aroclor 1232						0 / 1	10.4	5.2
Aroclor 1242						0 / 1	10.4	5.2
Aroclor 1248						0 / 1	10.4	5.2
Aroclor 1254						0 / 1	10.4	5.2
Aroclor 1260						0 / 1	10.4	5.2
beta-BHC						0 / 1	2.6	1.3
delta-BHC						0 / 1	2.6	1.3

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TABLE 2-40
SEDIMENT DATA SUMMARY - STATION 02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 1	2.6	1.3
Endosulfan I						0 / 1	2.6	1.3
Endosulfan II						0 / 1	2.6	1.3
Endosulfan sulfate						0 / 1	2.6	1.3
Endrin						0 / 1	2.6	1.3
Endrin ketone						0 / 1	2.6	1.3
gamma-BHC (Lindane)						0 / 1	2.6	1.3
gamma-Chlordane						0 / 1	2.6	1.3
Heptachlor						0 / 1	2.6	1.3
Heptachlor epoxide						0 / 1	2.6	1.3
Methoxychlor						0 / 1	13	6.5
Toxaphene						0 / 1	26	13
Metals - mg/Kg								
Aluminum	8620		8620		SD-MC-02	1 / 1	N/A	8620
Antimony	1.4	J	1.4	J	SD-MC-02	1 / 1	N/A	1.4
Arsenic	29.9		29.9		SD-MC-02	1 / 1	N/A	30
Barium	80.7		80.7		SD-MC-02	1 / 1	N/A	81
Beryllium	1.1		1.1		SD-MC-02	1 / 1	N/A	1.1
Cadmium	2.9		2.9		SD-MC-02	1 / 1	N/A	2.9
Chromium	155	J	155	J	SD-MC-02	1 / 1	N/A	155
Cobalt	12.1		12.1		SD-MC-02	1 / 1	N/A	12
Copper	65.7		65.7		SD-MC-02	1 / 1	N/A	65.7
Iron	25500		25500		SD-MC-02	1 / 1	N/A	25500
Lead	197		197		SD-MC-02	1 / 1	N/A	197
Manganese	837		837		SD-MC-02	1 / 1	N/A	837
Mercury	0.35		0.35		SD-MC-02	1 / 1	N/A	0.35
Nickel	19.6		19.6		SD-MC-02	1 / 1	N/A	20
Selenium	1.2	J	1.2	J	SD-MC-02	1 / 1	N/A	1.2
Silver	0.47		0.47		SD-MC-02	1 / 1	N/A	0.47
Thallium						0 / 1	0.45	0.23
Vanadium	51.5		51.5		SD-MC-02	1 / 1	N/A	52
Zinc	377		377		SD-MC-02	1 / 1	N/A	377
AVS-SEM - mg/Kg								
Cadmium	4.3		4.3		SD-MC-02	1 / 1	N/A	4.3
Copper	8.9		8.9		SD-MC-02	1 / 1	N/A	8.9
Lead	249		249		SD-MC-02	1 / 1	N/A	249
Nickel						0 / 1	64.559	32
SEM/AVS Ratio	0.090	J	0.090	J	SD-MC-02	1 / 1	N/A	0.090
Sulfide	3852	J	3852	J	SD-MC-02	1 / 1	N/A	3852
Zinc	569	J	569	J	SD-MC-02	1 / 1	N/A	569
Total Organic Carbon (mg/Kg)	370000	J	370000	J	SD-MC-02	1 / 1	N/A	370000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-41
SEDIMENT DATA SUMMARY - STATION 03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane	100	J	100	J	SD-MC-03-TR	1 / 2	7 - 60	52
1,1,2,2-Tetrachloroethane						0 / 1	7	3.5
1,1,2-Trichloro-1,2,2-trifluoroetha	52	J	52	J	SD-MC-03-TR	1 / 1	60	52
1,1,2-Trichloroethane						0 / 1	7	3.5
1,1-Dichloroethane						0 / 1	7	3.5
1,1-Dichloroethene						0 / 1	7	3.5
1,2-Dichloroethane						0 / 1	7	3.5
1,2-Dichloropropane						0 / 1	7	4
2-Butanone	60	J	60	J	SD-MC-03	1 / 1	N/A	60
2-Hexanone						0 / 1	7	4
Acetone	210	J	400	J	SD-MC-03-TR	2 / 2	60	305
Benzene						0 / 1	7	3.5
Bromodichloromethane						0 / 1	7	3.5
Bromoform						0 / 1	7	4
Bromomethane						0 / 1	36	18
Carbon Disulfide						0 / 1	7	3.5
Carbon Tetrachloride						0 / 1	7	3.5
Chlorobenzene						0 / 1	7	3.5
Chloroethane						0 / 1	7	3.5
Chloroform						0 / 1	18	9.0
Chloromethane						0 / 1	7	3.5
cis-1,2-Dichloroethene						0 / 1	7	3.5
cis-1,3-Dichloropropene						0 / 1	7	3.5
Dibromochloromethane						0 / 1	7	3.5
Ethylbenzene						0 / 1	7	3.5
Methyl Acetate	350	J	350	J	SD-MC-03-TR	1 / 1	60	350
Methyl isobutyl ketone (MIBK)						0 / 1	7	3.5
Methylene Chloride						0 / 2	7 - 160	42
Styrene						0 / 1	7	3.5
Tetrachloroethene						0 / 1	7	3.5
Toluene	73	J	73	J	SD-MC-03-TR	1 / 2	7 - 60	38
trans-1,2-Dichloroethene						0 / 1	7	3.5
trans-1,3-Dichloropropene						0 / 1	7	3.5
Trichloroethene						0 / 1	7	3.5
Vinyl chloride						0 / 1	7	3.5
Xylene, m/p-						0 / 1	15	7.5
Xylene, o-						0 / 1	7	3.5
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	370	185
1,2,4-Trichlorobenzene sv						0 / 1	340	170
1,2-Dichlorobenzene						0 / 1	340	170
1,3-Dichlorobenzene						0 / 1	340	170
1,4-Dichlorobenzene						0 / 1	340	170
2,2'-oxybis(1-Chloropropane)						0 / 1	370	185
2,4,5-Trichlorophenol						0 / 2	850 - 920	443
2,4,6-Trichlorophenol						0 / 2	340 - 370	178
2,4-Dichlorophenol						0 / 2	340 - 370	178
2,4-Dimethylphenol						0 / 2	340 - 370	178
2,4-Dinitrophenol						0 / 2	850 - 920	443
2,4-Dinitrotoluene						0 / 2	340 - 370	178
2,6-Dinitrotoluene						0 / 2	340 - 370	178
2-Chloronaphthalene						0 / 2	340 - 370	178
2-Chlorophenol						0 / 2	340 - 370	178
2-Methylnaphthalene	93	J	93	J	SD-MC-03	1 / 2	370	139
2-Methylphenol						0 / 2	340 - 370	178
2-Nitroaniline						0 / 2	850 - 920	443
2-Nitrophenol						0 / 2	340 - 370	178
3,3'-Dichlorobenzidine						0 / 2	340 - 370	178
3+4-Methylphenols						0 / 1	370	185
3-Nitroaniline						0 / 2	340 - 370	178
4,6-Dinitro-2-methylphenol						0 / 2	850 - 920	443
4-Bromophenyl-phenylether						0 / 2	340 - 370	178
4-Chloro-3-methylphenol						0 / 2	340 - 370	178

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TABLE 2-41
SEDIMENT DATA SUMMARY - STATION 03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Chloroaniline						0 / 2	340 - 370	178
4-Chlorophenyl-phenyl ether						0 / 2	340 - 370	178
4-Methylphenol						0 / 1	340	170
4-Nitroaniline						0 / 2	850 - 920	443
4-Nitrophenol						0 / 2	850 - 920	443
Acenaphthene	110	J	110	J	SD-MC-03	1 / 2	370	148
Acenaphthylene	390		390		SD-MC-03	1 / 2	370	288
Acetophenone						0 / 1	370	185
Anthracene	440		440		SD-MC-03	1 / 2	370	313
Atrazine						0 / 1	370	185
Benzaldehyde						0 / 1	370	185
Benzo(a)anthracene	2100		2100		SD-MC-03	1 / 2	370	1143
Benzo(a)pyrene	3300		3300		SD-MC-03	1 / 2	370	1743
Benzo(b)fluoranthene	180	J	4900		SD-MC-03	2 / 2	370	2540
Benzo(g,h,i)perylene	1700		1700		SD-MC-03	1 / 2	370	943
Benzo(k)fluoranthene	3200		3200		SD-MC-03	1 / 2	370	1693
bis(2-Chloroethoxy)methane						0 / 2	340 - 370	178
bis(2-Chloroethyl)ether						0 / 2	340 - 370	178
bis(2-chloroisopropyl)ether						0 / 1	340	170
bis(2-Ethylhexyl)phthalate	1200		1200		SD-MC-03	1 / 2	370	693
Butylbenzylphthalate						0 / 2	340 - 370	178
Caprolactam						0 / 1	370	185
Carbazole	370		370		SD-MC-03	1 / 2	370	278
Chrysene	4400		4400		SD-MC-03	1 / 2	370	2293
Dibenz(a,h)anthracene	530		530		SD-MC-03	1 / 2	370	358
Dibenzofuran	120	J	120	J	SD-MC-03	1 / 2	370	153
Diethylphthalate						0 / 2	340 - 370	178
Dimethylphthalate						0 / 2	340 - 370	178
Di-n-butylphthalate						0 / 2	340 - 370	178
Di-n-octylphthalate						0 / 2	340 - 370	178
Fluoranthene	220	J	6400		SD-MC-03	2 / 2	370	3310
Fluorene	210	J	210	J	SD-MC-03	1 / 2	370	198
Hexachlorobenzene						0 / 2	340 - 370	178
Hexachlorobutadiene sv						0 / 2	340 - 370	178
Hexachlorocyclopentadiene						0 / 2	370 - 850	305
Hexachloroethane						0 / 2	340 - 370	178
Indeno(1,2,3-cd)pyrene	2400		2400		SD-MC-03	1 / 2	370	1293
Isophorone						0 / 2	340 - 370	178
Naphthalene	160	J	160	J	SD-MC-03	1 / 2	370	173
Nitrobenzene						0 / 2	340 - 370	178
N-Nitroso-di-n-propylamine						0 / 2	340 - 370	178
N-nitrosodiphenylamine						0 / 2	340 - 370	178
Pentachlorophenol						0 / 2	850 - 920	443
Phenanthrene	3300		3300		SD-MC-03	1 / 2	370	1743
Phenol						0 / 2	340 - 370	178
Pyrene	230	J	6100		SD-MC-03	2 / 2	370	3165
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.1	J	97	J	SD-MC-03	2 / 2	2.9	49
4,4'-DDE	1.6	J	43	J	SD-MC-03	2 / 2	2.9	22
4,4'-DDT	26	J	26	J	SD-MC-03	1 / 2	2.9	14
Aldrin						0 / 2	0.85 - 1.5	0.59
Alpha-BHC						0 / 2	0.85 - 1.5	0.59
alpha-Chlordane	69	J	69	J	SD-MC-03	1 / 2	1.5	35
Aroclor 1016						0 / 2	3.4 - 29	8.1
Aroclor 1221						0 / 2	3.4 - 59	15.6
Aroclor 1232						0 / 2	3.4 - 29	8.1
Aroclor 1242						0 / 2	3.4 - 29	8.1
Aroclor 1248						0 / 2	3.4 - 29	8.1
Aroclor 1254						0 / 2	3.4 - 29	8.1
Aroclor 1260						0 / 2	3.4 - 29	8.1
beta-BHC						0 / 2	0.85 - 1.5	0.59
delta-BHC						0 / 2	0.85 - 1.5	0.59

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SEDIMENT DATA SUMMARY - STATION 03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 2	0.85 - 2.9	0.94
Endosulfan I						0 / 2	0.85 - 1.5	0.59
Endosulfan II						0 / 2	0.85 - 2.9	0.94
Endosulfan sulfate						0 / 2	0.85 - 2.9	0.94
Endrin						0 / 2	0.85 - 2.9	0.94
Endrin Aldehyde						0 / 1	2.9	1.5
Endrin ketone						0 / 2	0.85 - 2.9	0.94
gamma-BHC (Lindane)						0 / 2	0.85 - 1.5	0.59
gamma-Chlordane						0 / 2	0.85 - 1.5	0.59
Heptachlor						0 / 2	0.85 - 1.5	0.59
Heptachlor epoxide						0 / 2	0.85 - 1.5	0.6
Methoxychlor						0 / 2	4.2 - 15	4.8
Toxaphene						0 / 2	8.5 - 150	40
Metals - mg/Kg								
Aluminum	15200		20200		SD-MC-03-TR	2 / 2	9.14	17700
Antimony	0.93	J	1.5		SD-MC-03-TR	2 / 2	0.74	1.2
Arsenic	21.4		34.4		SD-MC-03-TR	2 / 2	1	28
Barium	89.6		155		SD-MC-03-TR	2 / 2	0.4	122
Beryllium	0.95		1.3	J	SD-MC-03-TR	2 / 2	0.2	1.1
Cadmium	2.8		4.1		SD-MC-03-TR	2 / 2	0.6	3.5
Calcium	6570		6570		SD-MC-03-TR	1 / 1	2.14	6570
Chromium	46.2	J	71.1		SD-MC-03-TR	2 / 2	1	59
Cobalt	13.2		19.2	J	SD-MC-03-TR	2 / 2	0.36	16
Copper	75		125		SD-MC-03-TR	2 / 2	0.44	100
Iron	20300		27700		SD-MC-03-TR	2 / 2	1.4	24000
Lead	153		259		SD-MC-03-TR	2 / 2	0.6	206
Magnesium	5810		5810		SD-MC-03-TR	1 / 1	15.18	5810
Manganese	383		423		SD-MC-03-TR	2 / 2	0.24	403
Mercury	0.09	J	0.26		SD-MC-03	2 / 2	0.02	0.18
Nickel	24.3		32.1		SD-MC-03-TR	2 / 2	0.8	28
Potassium	2330	J	2330	J	SD-MC-03-TR	1 / 1	4.38	2330
Selenium	0.88	J	0.88	J	SD-MC-03	1 / 2	1	0.69
Silver	0.9		0.9		SD-MC-03	1 / 2	1	0.70
Sodium	5400		5400		SD-MC-03-TR	1 / 1	98.04	5400
Thallium						0 / 2	0.55 - 1.1	0.41
Vanadium	43.5		56		SD-MC-03-TR	2 / 2	0.64	50
Zinc	457		645	J	SD-MC-03-TR	2 / 2	1.7	551
AVS-SEM - mg/Kg								
Cadmium	2.5		2.7		SD-MC-03-TR	2 / 2	N/A	2.6
Copper	44		71		SD-MC-03-TR	2 / 2	N/A	58
Lead	166		169		SD-MC-03-TR	2 / 2	N/A	167
Mercury	0.080	J	0.080	J	SD-MC-03-TR	1 / 1	N/A	0.080
Nickel	17		17		SD-MC-03-TR	1 / 2	42.2568	19
SEM/AVS Ratio	0.16	J	60		SD-MC-03-TR	2 / 2	N/A	30
Sulfide	4.5	J	1445	J	SD-MC-03	2 / 2	N/A	724
Zinc	366	J	400	J	SD-MC-03-TR	2 / 2	N/A	383
Total Organic Carbon	110000	J	330000		SD-MC-03-TR	2 / 2	250	220000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-42
SEDIMENT DATA SUMMARY - STATION 04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 2	13 - 32	11
1,1,2,2-Tetrachloroethane						0 / 2	13 - 32	11
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	32	16
1,1,2-Trichloroethane						0 / 2	13 - 32	11
1,1-Dichloroethane						0 / 2	13 - 32	11
1,1-Dichloroethene						0 / 2	13 - 32	11
1,2,4-Trichlorobenzene						0 / 1	32	16
1,2-Dibromo-3-chloropropane						0 / 1	32	16
1,2-Dibromoethane						0 / 1	32	16
1,2-Dichlorobenzene						0 / 1	32	16
1,2-Dichloroethane						0 / 2	13 - 32	11
1,2-Dichloropropane						0 / 2	13 - 32	11
1,3-Dichlorobenzene						0 / 1	32	16
1,4-Dichlorobenzene						0 / 1	32	16
2-Butanone						0 / 2	13 - 32	11
2-Hexanone						0 / 2	13 - 32	11
4-Methyl-2-Pentanone						0 / 1	32	16
Acetone						0 / 2	32 - 180	54
Benzene						0 / 2	13 - 32	11
Bromodichloromethane						0 / 2	13 - 32	11
Bromoform						0 / 2	13 - 32	11
Bromomethane						0 / 2	13 - 32	11
Carbon Disulfide						0 / 2	13 - 32	11
Carbon Tetrachloride						0 / 2	32 - 34	17
Chlorobenzene						0 / 2	13 - 32	11
Chloroethane						0 / 2	13 - 32	11
Chloroform						0 / 2	32 - 34	17
Chloromethane						0 / 2	13 - 32	11
cis-1,2-Dichloroethene						0 / 2	13 - 32	11
cis-1,3-Dichloropropene						0 / 2	13 - 32	11
Cyclohexane						0 / 1	32	16
Dibromochloromethane						0 / 2	13 - 32	11
Dichlorodifluoromethane						0 / 1	32	16
Ethylbenzene						0 / 2	13 - 32	11
Isopropylbenzene						0 / 1	32	16
Methyl Acetate	36		36		SD-MC-04-TR	1 / 1	32	36
Methyl isobutyl ketone (MIBK)						0 / 1	13	6.5
Methyl tert-Butyl Ether						0 / 1	32	16
Methylcyclohexane						0 / 1	32	16
Methylene Chloride						0 / 2	32 - 34	17
Styrene						0 / 2	13 - 32	11
Tetrachloroethene						0 / 2	13 - 32	11
Toluene						0 / 2	32 - 34	17
trans-1,2-Dichloroethene						0 / 2	13 - 32	11
trans-1,3-Dichloropropene						0 / 2	13 - 32	11
Trichloroethene						0 / 2	13 - 32	11
Trichlorofluoromethane						0 / 1	32	16
Vinyl chloride						0 / 2	13 - 32	11
Xylene, m/p-						0 / 2	27 - 32	15
Xylene, o-						0 / 2	13 - 32	11
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	430	215
1,2,4-Trichlorobenzene sv						0 / 1	400	200
1,2-Dichlorobenzene						0 / 1	400	200
1,3-Dichlorobenzene						0 / 1	400	200
1,4-Dichlorobenzene						0 / 1	400	200
2,2'-oxybis(1-Chloropropane)						0 / 1	430	215
2,4,5-Trichlorophenol						0 / 2	990 - 1100	523
2,4,6-Trichlorophenol						0 / 2	400 - 430	208
2,4-Dichlorophenol						0 / 2	400 - 430	208
2,4-Dimethylphenol						0 / 2	400 - 430	208
2,4-Dinitrophenol						0 / 2	990 - 1100	523
2,4-Dinitrotoluene						0 / 2	400 - 430	208
2,6-Dinitrotoluene						0 / 2	400 - 430	208
2-Chloronaphthalene						0 / 2	400 - 430	208
2-Chlorophenol						0 / 2	400 - 430	208

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TABLE 2-42
SEDIMENT DATA SUMMARY - STATION 04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
2-Methylnaphthalene						0 / 2	400 - 430	208
2-Methylphenol						0 / 2	400 - 430	208
2-Nitroaniline						0 / 2	990 - 1100	523
2-Nitrophenol						0 / 2	400 - 430	208
3,3'-Dichlorobenzidine						0 / 2	400 - 430	208
3+4-Methylphenols						0 / 1	430	215
3-Nitroaniline						0 / 2	400 - 430	208
4,6-Dinitro-2-methylphenol						0 / 2	990 - 1100	523
4-Bromophenyl-phenylether						0 / 2	400 - 430	208
4-Chloro-3-methylphenol						0 / 2	400 - 430	208
4-Chloroaniline						0 / 2	400 - 430	208
4-Chlorophenyl-phenyl ether						0 / 2	400 - 430	208
4-Methylphenol						0 / 1	400	200
4-Nitroaniline						0 / 2	990 - 1100	523
4-Nitrophenol						0 / 2	990 - 1100	523
Acenaphthene						0 / 2	400 - 430	208
Acenaphthylene	200	J	200	J	SD-MC-04	1 / 2	430	208
Acetophenone						0 / 1	430	215
Anthracene	320	J	320	J	SD-MC-04	1 / 2	430	268
Atrazine						0 / 1	430	215
Benzaldehyde						0 / 1	430	215
Benzo(a)anthracene	1500		1500		SD-MC-04	1 / 2	430	858
Benzo(a)pyrene	2100		2100		SD-MC-04	1 / 2	430	1158
Benzo(b)fluoranthene	210	J	3000		SD-MC-04	2 / 2	430	1605
Benzo(g,h,i)perylene	1400		1400		SD-MC-04	1 / 2	430	808
Benzo(k)fluoranthene	2200		2200		SD-MC-04	1 / 2	430	1208
bis(2-Chloroethoxy)methane						0 / 2	400 - 430	208
bis(2-Chloroethyl)ether						0 / 2	400 - 430	208
bis(2-chloroisopropyl)ether						0 / 1	400	200
bis(2-Ethylhexyl)phthalate	180	J	180	J	SD-MC-04	1 / 2	430	198
Butylbenzylphthalate						0 / 2	400 - 430	208
Caprolactam						0 / 1	430	215
Carbazole	220	J	220	J	SD-MC-04	1 / 2	430	218
Chrysene	2600		2600		SD-MC-04	1 / 2	430	1408
Dibenz(a,h)anthracene	350	J	350	J	SD-MC-04	1 / 2	430	283
Dibenzofuran	120	J	120	J	SD-MC-04	1 / 2	430	168
Diethylphthalate						0 / 2	400 - 430	208
Dimethylphthalate						0 / 2	400 - 430	208
Di-n-butylphthalate						0 / 2	400 - 430	208
Di-n-octylphthalate						0 / 2	400 - 430	208
Fluoranthene	230	J	3700		SD-MC-04	2 / 2	430	1965
Fluorene	160	J	160	J	SD-MC-04	1 / 2	430	188
Hexachlorobenzene						0 / 2	400 - 430	208
Hexachlorobutadiene sv						0 / 2	400 - 430	208
Hexachlorocyclopentadiene						0 / 2	430 - 990	355
Hexachloroethane						0 / 2	400 - 430	208
Indeno(1,2,3-cd)pyrene	1800		1800		SD-MC-04	1 / 2	430	1008
Isophorone						0 / 2	400 - 430	208
Naphthalene	110	J	110	J	SD-MC-04	1 / 2	430	163
Nitrobenzene						0 / 2	400 - 430	208
N-Nitroso-di-n-propylamine						0 / 2	400 - 430	208
N-nitrosodiphenylamine						0 / 2	400 - 430	208
Pentachlorophenol						0 / 2	990 - 1100	523
Phenanthrene	1600		1600		SD-MC-04	1 / 2	430	908
Phenol						0 / 2	400 - 430	208
Pyrene	220	J	3400		SD-MC-04	2 / 2	430	1810
PCBs/Pesticides - ug/Kg								
4,4'-DDD	27		27		SD-MC-04	1 / 2	3.4	14
4,4'-DDE						0 / 2	0.99 - 3.4	1.1
4,4'-DDT						0 / 2	0.99 - 3.4	1.1
Aldrin						0 / 2	0.99 - 1.7	0.67
Alpha-BHC						0 / 2	0.99 - 1.7	0.67
alpha-Chlordane						0 / 2	0.99 - 1.7	0.67
Aroclor 1016						0 / 2	3.9 - 34	9.5
Aroclor 1221						0 / 2	3.9 - 67	18
Aroclor 1232						0 / 2	3.9 - 34	9.5
Aroclor 1242						0 / 2	3.9 - 34	9.5
Aroclor 1248						0 / 2	3.9 - 34	9.5
Aroclor 1254						0 / 2	3.9 - 34	9.5
Aroclor 1260						0 / 2	3.9 - 34	9.5
beta-BHC						0 / 2	0.99 - 1.7	0.67
delta-BHC						0 / 2	0.99 - 1.7	0.67

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TABLE 2-42
SEDIMENT DATA SUMMARY - STATION 04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 2	0.99 - 3.4	1.1
Endosulfan I						0 / 2	0.99 - 1.7	0.67
Endosulfan II						0 / 2	0.99 - 3.4	1.1
Endosulfan sulfate						0 / 2	0.99 - 3.4	1.1
Endrin						0 / 2	0.99 - 3.4	1.1
Endrin Aldehyde						0 / 1	3.4	1.7
Endrin ketone						0 / 2	0.99 - 3.4	1.1
gamma-BHC (Lindane)						0 / 2	0.99 - 1.7	0.67
gamma-Chlordane						0 / 2	0.99 - 1.7	0.67
Heptachlor						0 / 2	0.99 - 1.7	0.67
Heptachlor epoxide						0 / 2	0.99 - 1.7	0.67
Methoxychlor						0 / 2	4.9 - 17	5.5
Toxaphene						0 / 2	9.9 - 170	45
Metals - mg/Kg								
Aluminum	10200		11600		SD-MC-04-TR	2 / 2	9.14	10900
Antimony	1.2	J	5.6		SD-MC-04-TR	2 / 2	0.74	3.4
Arsenic	32.7		44.5		SD-MC-04-TR	2 / 2	1	39
Barium	108		173		SD-MC-04-TR	2 / 2	0.4	141
Beryllium	0.71		0.87	J	SD-MC-04-TR	2 / 2	0.2	0.79
Cadmium	5.2		6.1		SD-MC-04	2 / 2	0.6	5.7
Calcium	9640		9640		SD-MC-04-TR	1 / 1	2.14	9640
Chromium	311	J	512		SD-MC-04-TR	2 / 2	1	412
Cobalt	21		21.8	J	SD-MC-04-TR	2 / 2	0.36	21
Copper	290		344		SD-MC-04-TR	2 / 2	0.44	317
Iron	36400		51600		SD-MC-04-TR	2 / 2	1.4	44000
Lead	49		369		SD-MC-04-TR	2 / 2	0.6	209
Magnesium	2890		2890		SD-MC-04-TR	1 / 1	15.18	2890
Manganese	1520		1980		SD-MC-04-TR	2 / 2	0.24	1750
Mercury	0.08	J	0.6		SD-MC-04	2 / 2	0.02	0.34
Nickel	25.6		25.8		SD-MC-04	2 / 2	0.8	26
Potassium	724	J	724	J	SD-MC-04-TR	1 / 1	4.38	724
Selenium	1.5	J	1.5	J	SD-MC-04	1 / 2	1	1.0
Silver	0.75		0.75		SD-MC-04	1 / 2	1	0.63
Sodium	402		402		SD-MC-04-TR	1 / 1	98.04	402
Thallium						0 / 2	0.62 - 1.1	0.43
Vanadium	50.2		53.8		SD-MC-04-TR	2 / 2	0.64	52
Zinc	590		611	J	SD-MC-04-TR	2 / 2	1.7	601
AVS-SEM - mg/Kg								
Cadmium	2.8		6.0		SD-MC-04	2 / 2	N/A	4.4
Copper	164		279		SD-MC-04	2 / 2	N/A	222
Lead	193		373		SD-MC-04	2 / 2	N/A	283
Mercury	0.10	J	0.10	J	SD-MC-04-TR	1 / 1	N/A	0.10
Nickel	10		10		SD-MC-04-TR	1 / 2	39.3223	15
SEM/AVS Ratio	3.4	J	64		SD-MC-04-TR	2 / 2	N/A	34
Sulfide	138	J	138	J	SD-MC-04	1 / 2	4.173	70
Zinc	305	J	536		SD-MC-04	2 / 2	N/A	421
Total Organic Carbon	120000	J	290000		SD-MC-04-TR	2 / 2	250	205000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-43
SEDIMENT DATA SUMMARY - STATION 12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	17	8.5
1,1,2,2-Tetrachloroethane						0 / 1	17	8.5
1,1,2-Trichloroethane						0 / 1	17	8.5
1,1-Dichloroethane						0 / 1	17	8.5
1,1-Dichloroethene						0 / 1	17	8.5
1,2-Dichloroethane						0 / 1	17	8.5
1,2-Dichloropropane						0 / 1	17	8.5
2-Butanone	230		230		SD-MC-12	1 / 1	N/A	230
2-Hexanone						0 / 1	17	8.5
Acetone	670	J	670	J	SD-MC-12	1 / 1	N/A	670
Benzene						0 / 1	17	8.5
Bromodichloromethane						0 / 1	17	8.5
Bromoform						0 / 1	17	8.5
Bromomethane						0 / 1	84	42
Carbon Disulfide						0 / 1	17	8.5
Carbon Tetrachloride						0 / 1	17	8.5
Chlorobenzene						0 / 1	17	8.5
Chloroethane						0 / 1	17	8.5
Chloroform						0 / 1	42	21
Chloromethane						0 / 1	17	8.5
cis-1,2-Dichloroethene						0 / 1	17	8.5
cis-1,3-Dichloropropene						0 / 1	17	8.5
Dibromochloromethane						0 / 1	17	8.5
Ethylbenzene						0 / 1	17	8.5
Methyl isobutyl ketone (MIBK)						0 / 1	17	8.5
Methylene Chloride						0 / 1	42	21
Styrene						0 / 1	17	8.5
Tetrachloroethene						0 / 1	17	8.5
Toluene						0 / 1	17	8.5
trans-1,2-Dichloroethene						0 / 1	17	8.5
trans-1,3-Dichloropropene						0 / 1	17	8.5
Trichloroethene						0 / 1	17	8.5
Vinyl chloride						0 / 1	17	8.5
Xylene, m/p-						0 / 1	34	17
Xylene, o-						0 / 1	17	8.5
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 1	320	160
1,2-Dichlorobenzene						0 / 1	320	160
1,3-Dichlorobenzene						0 / 1	320	160
1,4-Dichlorobenzene						0 / 1	320	160
2,4,5-Trichlorophenol						0 / 1	790	395
2,4,6-Trichlorophenol						0 / 1	320	160
2,4-Dichlorophenol						0 / 1	320	160
2,4-Dimethylphenol						0 / 1	320	160
2,4-Dinitrophenol						0 / 1	790	395
2,4-Dinitrotoluene						0 / 1	320	160
2,6-Dinitrotoluene						0 / 1	320	160
2-Chloronaphthalene						0 / 1	320	160
2-Chlorophenol						0 / 1	320	160
2-Methylnaphthalene	81	J	81	J	SD-MC-12	1 / 1	N/A	81
2-Methylphenol						0 / 1	320	160
2-Nitroaniline						0 / 1	790	395
2-Nitrophenol						0 / 1	320	160
3,3'-Dichlorobenzidine						0 / 1	320	160
3-Nitroaniline						0 / 1	320	160
4,6-Dinitro-2-methylphenol						0 / 1	790	395
4-Bromophenyl-phenylether						0 / 1	320	160
4-Chloro-3-methylphenol						0 / 1	320	160
4-Chloroaniline						0 / 1	320	160
4-Chlorophenyl-phenyl ether						0 / 1	320	160
4-Methylphenol						0 / 1	320	160
4-Nitroaniline						0 / 1	790	395

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TABLE 2-43
SEDIMENT DATA SUMMARY - STATION 12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Nitrophenol						0 / 1	790	395
Acenaphthene	81	J	81	J	SD-MC-12	1 / 1	N/A	81
Acenaphthylene	190	J	190	J	SD-MC-12	1 / 1	N/A	190
Anthracene	380		380		SD-MC-12	1 / 1	N/A	380
Benzo(a)anthracene	1400		1400		SD-MC-12	1 / 1	N/A	1400
Benzo(a)pyrene	1900		1900		SD-MC-12	1 / 1	N/A	1900
Benzo(b)fluoranthene	2100		2100		SD-MC-12	1 / 1	N/A	2100
Benzo(g,h,i)perylene	1100		1100		SD-MC-12	1 / 1	N/A	1100
Benzo(k)fluoranthene	2000		2000		SD-MC-12	1 / 1	N/A	2000
bis(2-Chloroethoxy)methane						0 / 1	320	160
bis(2-Chloroethyl)ether						0 / 1	320	160
bis(2-chloroisopropyl)ether						0 / 1	320	160
bis(2-Ethylhexyl)phthalate	100	J	100	J	SD-MC-12	1 / 1	N/A	100
Butylbenzylphthalate						0 / 1	320	160
Carbazole	170	J	170	J	SD-MC-12	1 / 1	N/A	170
Chrysene	2100		2100		SD-MC-12	1 / 1	N/A	2100
Di-n-butylphthalate						0 / 1	320	160
Di-n-octylphthalate						0 / 1	320	160
Dibenz(a,h)anthracene	320		320		SD-MC-12	1 / 1	N/A	320
Dibenzofuran	120	J	120	J	SD-MC-12	1 / 1	N/A	120
Diethylphthalate						0 / 1	320	160
Dimethylphthalate						0 / 1	320	160
Fluoranthene	3100		3100		SD-MC-12	1 / 1	N/A	3100
Fluorene	190	J	190	J	SD-MC-12	1 / 1	N/A	190
Hexachlorobenzene						0 / 1	320	160
Hexachlorobutadiene sv						0 / 1	320	160
Hexachlorocyclopentadiene						0 / 1	790	395
Hexachloroethane						0 / 1	320	160
Indeno(1,2,3-cd)pyrene	1400		1400		SD-MC-12	1 / 1	N/A	1400
Isophorone						0 / 1	320	160
N-Nitroso-di-n-propylamine						0 / 1	320	160
N-nitrosodiphenylamine						0 / 1	320	160
Naphthalene	160	J	160	J	SD-MC-12	1 / 1	N/A	160
Nitrobenzene						0 / 1	320	160
Pentachlorophenol						0 / 1	790	395
Phenanthrene	1500		1500		SD-MC-12	1 / 1	N/A	1500
Phenol						0 / 1	320	160
Pyrene	2900		2900		SD-MC-12	1 / 1	N/A	2900
PCBs/Pesticides - ug/Kg								
4,4'-DDD	8		8		SD-MC-12	1 / 1	N/A	8.0
4,4'-DDE						0 / 1	0.79	0.40
4,4'-DDT						0 / 1	0.79	0.40
Aldrin						0 / 1	0.79	0.40
Alpha-BHC						0 / 1	0.79	0.40
alpha-Chlordane						0 / 1	0.79	0.40
Aroclor 1016						0 / 1	3.2	1.6
Aroclor 1221						0 / 1	3.2	1.6
Aroclor 1232						0 / 1	3.2	1.6
Aroclor 1242						0 / 1	3.2	1.6
Aroclor 1248						0 / 1	3.2	1.6
Aroclor 1254						0 / 1	3.2	1.6
Aroclor 1260						0 / 1	3.2	1.6
beta-BHC						0 / 1	0.79	0.40
delta-BHC						0 / 1	0.79	0.40

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TABLE 2-43
SEDIMENT DATA SUMMARY - STATION 12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin						0 / 1	0.79	0.40
Endosulfan I						0 / 1	0.79	0.40
Endosulfan II						0 / 1	0.79	0.40
Endosulfan sulfate						0 / 1	0.79	0.40
Endrin						0 / 1	0.79	0.40
Endrin ketone						0 / 1	0.79	0.40
gamma-BHC (Lindane)						0 / 1	0.79	0.40
gamma-Chlordane						0 / 1	0.79	0.40
Heptachlor						0 / 1	0.79	0.40
Heptachlor epoxide						0 / 1	0.79	0.40
Methoxychlor						0 / 1	4	2.0
Toxaphene						0 / 1	7.9	4.0
Metals - mg/Kg								
Aluminum	7520		7520		SD-MC-12	1 / 1	N/A	7520
Antimony	0.71	J	0.71	J	SD-MC-12	1 / 1	N/A	0.71
Arsenic	22.8		22.8		SD-MC-12	1 / 1	N/A	23
Barium	70.5		70.5		SD-MC-12	1 / 1	N/A	71
Beryllium	0.52		0.52		SD-MC-12	1 / 1	N/A	0.52
Cadmium	1.2		1.2		SD-MC-12	1 / 1	N/A	1.2
Chromium	198	J	198	J	SD-MC-12	1 / 1	N/A	198
Cobalt	9.2	J	9.2	J	SD-MC-12	1 / 1	N/A	9.2
Copper	36.3		36.3		SD-MC-12	1 / 1	N/A	36
Iron	17800		17800		SD-MC-12	1 / 1	N/A	17800
Lead	153		153		SD-MC-12	1 / 1	N/A	153
Manganese	1180		1180		SD-MC-12	1 / 1	N/A	1180
Mercury	0.42		0.42		SD-MC-12	1 / 1	N/A	0.42
Nickel	10.9		10.9		SD-MC-12	1 / 1	N/A	11
Selenium	1.2	J	1.2	J	SD-MC-12	1 / 1	N/A	1.2
Silver	0.2	J	0.2	J	SD-MC-12	1 / 1	N/A	0.20
Thallium						0 / 1	0.49	0.25
Vanadium	23.7		23.7		SD-MC-12	1 / 1	N/A	24
Zinc	234		234		SD-MC-12	1 / 1	N/A	234
AVS-SEM - mg/Kg								
Cadmium	2.6		2.6		SD-MC-12	1 / 1	N/A	2.6
Copper	35		35		SD-MC-12	1 / 1	N/A	35
Lead	189		189		SD-MC-12	1 / 1	N/A	189
Nickel						0 / 1	39.9092	20
SEM/AVS Ratio	3.8	J	3.8	J	SD-MC-12	1 / 1	N/A	3.8
Sulfide	48	J	48	J	SD-MC-12	1 / 1	N/A	48
Zinc	41		41		SD-MC-12	1 / 1	N/A	41
Total Organic Carbon (mg/Kg)	130000	J	130000	J	SD-MC-12	1 / 1	N/A	130000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-44
SEDIMENT DATA SUMMARY - STATION HB
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	30	15
1,1,2,2-Tetrachloroethane						0 / 1	30	15
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	30	15
1,1,2-Trichloroethane						0 / 1	30	15
1,1-Dichloroethane						0 / 1	30	15
1,1-Dichloroethene						0 / 1	30	15
1,2,4-Trichlorobenzene						0 / 1	30	15
1,2-Dibromo-3-chloropropane						0 / 1	30	15
1,2-Dibromoethane						0 / 1	30	15
1,2-Dichlorobenzene						0 / 1	30	15
1,2-Dichloroethane						0 / 1	30	15
1,2-Dichloropropane						0 / 1	30	15
1,3-Dichlorobenzene						0 / 1	30	15
1,4-Dichlorobenzene						0 / 1	30	15
2-Butanone						0 / 1	30	15
2-Hexanone						0 / 1	30	15
4-Methyl-2-Pentanone						0 / 1	30	15
Acetone						0 / 1	120	60
Benzene						0 / 1	30	15
Bromodichloromethane						0 / 1	30	15
Bromoform						0 / 1	30	15
Bromomethane						0 / 1	30	15
Carbon Disulfide						0 / 1	30	15
Carbon Tetrachloride						0 / 1	30	15
Chlorobenzene						0 / 1	30	15
Chloroethane						0 / 1	30	15
Chloroform						0 / 1	30	15
Chloromethane						0 / 1	30	15
cis-1,2-Dichloroethene						0 / 1	30	15
cis-1,3-Dichloropropene						0 / 1	30	15
Cyclohexane						0 / 1	30	15
Dibromochloromethane						0 / 1	30	15
Dichlorodifluoromethane						0 / 1	30	15
Ethylbenzene						0 / 1	30	15
Isopropylbenzene						0 / 1	30	15
Methyl Acetate	58		58		SD-HB-00-TR	1 / 1	10	58
Methyl tert-Butyl Ether						0 / 1	30	15
Methylcyclohexane						0 / 1	30	15
Methylene Chloride						0 / 1	30	15
Styrene						0 / 1	30	15
Tetrachloroethene						0 / 1	30	15
Toluene						0 / 1	30	15
trans-1,2-Dichloroethene						0 / 1	30	15
trans-1,3-Dichloropropene						0 / 1	30	15
Trichloroethene						0 / 1	30	15
Trichlorofluoromethane						0 / 1	30	15
Vinyl Chloride						0 / 1	30	15
Xylene, m/p-						0 / 1	30	15
Xylene, o-						0 / 1	30	15
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	460	230
2,2'-oxybis(1-Chloropropane)						0 / 1	460	230
2,4,5-Trichlorophenol						0 / 1	1100	550
2,4,6-Trichlorophenol						0 / 1	460	230
2,4-Dichlorophenol						0 / 1	460	230
2,4-Dimethylphenol						0 / 1	460	230
2,4-Dinitrophenol						0 / 1	1100	550
2,4-Dinitrotoluene						0 / 1	460	230
2,6-Dinitrotoluene						0 / 1	460	230
2-Chloronaphthalene						0 / 1	460	230
2-Chlorophenol						0 / 1	460	230
2-Methylnaphthalene						0 / 1	460	230
2-Methylphenol						0 / 1	460	230
2-Nitroaniline						0 / 1	1100	550
2-Nitrophenol						0 / 1	460	230
3,3'-Dichlorobenzidine						0 / 1	460	230
3+4-Methylphenols						0 / 1	460	230
3-Nitroaniline						0 / 1	460	230
4,6-Dinitro-2-methylphenol						0 / 1	1100	550
4-Bromophenyl-phenylether						0 / 1	460	230

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TABLE 2-44
SEDIMENT DATA SUMMARY - STATION HB
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Chloro-3-methylphenol						0 / 1	460	230
4-Chloroaniline						0 / 1	460	230
4-Chlorophenyl-phenyl ether						0 / 1	460	230
4-Nitroaniline						0 / 1	1100	550
4-Nitrophenol						0 / 1	1100	550
Acenaphthene						0 / 1	460	230
Acenaphthylene						0 / 1	460	230
Acetophenone						0 / 1	460	230
Anthracene						0 / 1	460	230
Atrazine						0 / 1	460	230
Benzaldehyde						0 / 1	460	230
Benzo(a)anthracene						0 / 1	460	230
Benzo(a)pyrene						0 / 1	460	230
Benzo(b)fluoranthene						0 / 1	460	230
Benzo(g,h,i)perylene						0 / 1	460	230
Benzo(k)fluoranthene						0 / 1	460	230
Bis(2-Chloroethoxy)methane						0 / 1	460	230
Bis(2-Chloroethyl)ether						0 / 1	460	230
bis(2-Ethylhexyl)phthalate						0 / 1	460	230
Butylbenzylphthalate						0 / 1	460	230
Caprolactam						0 / 1	460	230
Carbazole						0 / 1	460	230
Chrysene						0 / 1	460	230
Dibenz(a,h)anthracene						0 / 1	460	230
Dibenzofuran						0 / 1	460	230
Diethylphthalate						0 / 1	460	230
Dimethylphthalate						0 / 1	460	230
Di-n-Butylphthalate						0 / 1	460	230
Di-n-octylphthalate						0 / 1	460	230
Fluoranthene						0 / 1	460	230
Fluorene						0 / 1	460	230
Hexachlorobenzene						0 / 1	460	230
Hexachlorobutadiene sv						0 / 1	460	230
Hexachlorocyclopentadiene						0 / 1	460	230
Hexachloroethane						0 / 1	460	230
Indeno(1,2,3-cd)pyrene						0 / 1	460	230
Isophorone						0 / 1	460	230
Naphthalene sv						0 / 1	460	230
Nitrobenzene						0 / 1	460	230
N-Nitroso-di-n-propylamine						0 / 1	460	230
N-Nitrosodiphenylamine						0 / 1	460	230
Pentachlorophenol						0 / 1	1100	550
Phenanthrene						0 / 1	460	230
Phenol						0 / 1	460	230
Pyrene						0 / 1	460	230
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	3.6	1.8
4,4'-DDE						0 / 1	3.6	1.8
4,4'-DDT						0 / 1	3.6	1.8
Aldrin						0 / 1	1.8	0.9
alpha-BHC						0 / 1	1.8	0.90
alpha-Chlordane						0 / 1	1.8	0.90
Aroclor 1016						0 / 1	36	18
Aroclor 1221						0 / 1	72	36
Aroclor 1232						0 / 1	36	18
Aroclor 1242						0 / 1	36	18
Aroclor 1248						0 / 1	36	18
Aroclor 1254						0 / 1	36	18
Aroclor 1260						0 / 1	36	18
beta-BHC						0 / 1	1.8	0.90
delta-BHC						0 / 1	1.8	0.90
Dieldrin						0 / 1	3.6	1.8
Endosulfan I						0 / 1	1.8	0.90
Endosulfan II						0 / 1	3.6	1.8
Endosulfan Sulfate						0 / 1	3.6	1.8
Endrin						0 / 1	3.6	1.8
Endrin Aldehyde						0 / 1	3.6	1.8
Endrin Ketone						0 / 1	3.6	1.8
gamma-BHC (Lindane)						0 / 1	1.8	0.90
gamma-Chlordane						0 / 1	1.8	0.90
Heptachlor						0 / 1	1.8	0.90

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TABLE 2-44
SEDIMENT DATA SUMMARY - STATION HB
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Heptachlor Epoxide						0 / 1	1.8	0.90
Methoxychlor						0 / 1	18	9.0
Toxaphene						0 / 1	180	90
Metals - mg/Kg								
Aluminum	6150		6150		SD-HB-00-TR	1 / 1	9.14	6150
Antimony	0.77	J	0.77	J	SD-HB-00-TR	1 / 1	0.74	0.77
Arsenic	16.2		16.2		SD-HB-00-TR	1 / 1	1	16
Barium	59.4		59.4		SD-HB-00-TR	1 / 1	0.4	59
Beryllium	0.73	J	0.73	J	SD-HB-00-TR	1 / 1	0.2	0.73
Cadmium	2.9		2.9		SD-HB-00-TR	1 / 1	0.6	2.9
Calcium	9160		9160		SD-HB-00-TR	1 / 1	2.14	9160
Chromium	18.2		18.2		SD-HB-00-TR	1 / 1	1	18
Cobalt	12.2	J	12.2	J	SD-HB-00-TR	1 / 1	0.36	12
Copper	37.5		37.5		SD-HB-00-TR	1 / 1	0.44	38
Iron	23300		23300		SD-HB-00-TR	1 / 1	1.4	23300
Lead	233		233		SD-HB-00-TR	1 / 1	0.6	233
Magnesium	1910		1910		SD-HB-00-TR	1 / 1	15.18	1910
Manganese	58.1		58.1		SD-HB-00-TR	1 / 1	0.24	58
Mercury						0 / 1	0.02	0.010
Nickel	27.3		27.3		SD-HB-00-TR	1 / 1	0.8	27
Potassium	395	J	395	J	SD-HB-00-TR	1 / 1	4.38	395
Selenium						0 / 1	0.99	0.50
Silver						0 / 1	0.99	0.50
Sodium	400		400		SD-HB-00-TR	1 / 1	98.04	400
Thallium						0 / 1	1.1	0.55
Vanadium	33.2		33.2		SD-HB-00-TR	1 / 1	0.64	33
Zinc	207	J	207	J	SD-HB-00-TR	1 / 1	1.7	207
AVS-SEM - mg/Kg								
Cadmium	1.6		1.6		SD-HB-00-TR	1 / 1	N/A	1.6
Copper	7.8		7.8		SD-HB-00-TR	1 / 1	N/A	7.8
Lead	139		139		SD-HB-00-TR	1 / 1	N/A	139
Mercury	0.020	J	0.020	J	SD-HB-00-TR	1 / 1	N/A	0.020
Nickel	5.9		5.9		SD-HB-00-TR	1 / 1	N/A	5.9
SEM/AVS Ratio	21		21		SD-HB-00-TR	1 / 1	N/A	21
Sulfide						0 / 1	4.494	2.2
Zinc	136	J	136	J	SD-HB-00-TR	1 / 1	N/A	136
Total Organic Carbon	250000		250000		SD-HB-00-TR	1 / 1	250	250000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-45
SEDIMENT DATA SUMMARY - STATION SA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	16	8
1,1,2,2-Tetrachloroethane						0 / 1	16	8
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	16	8
1,1,2-Trichloroethane						0 / 1	16	8
1,1-Dichloroethane						0 / 1	16	8
1,1-Dichloroethene						0 / 1	16	8
1,2,4-Trichlorobenzene						0 / 1	16	8
1,2-Dibromo-3-chloropropane						0 / 1	16	8
1,2-Dibromoethane						0 / 1	16	8
1,2-Dichlorobenzene						0 / 1	16	8
1,2-Dichloroethane						0 / 1	16	8
1,2-Dichloropropane						0 / 1	16	8
1,3-Dichlorobenzene						0 / 1	16	8
1,4-Dichlorobenzene						0 / 1	16	8
2-Butanone						0 / 1	16	8
2-Hexanone						0 / 1	16	8
4-Methyl-2-Pentanone						0 / 1	16	8
Acetone						0 / 1	180	90
Benzene						0 / 1	16	8
Bromodichloromethane						0 / 1	16	8
Bromoform						0 / 1	16	8
Bromomethane						0 / 1	16	8
Carbon Disulfide						0 / 1	16	8
Carbon Tetrachloride						0 / 1	16	8
Chlorobenzene						0 / 1	16	8
Chloroethane						0 / 1	16	8
Chloroform						0 / 1	16	8
Chloromethane						0 / 1	16	8
cis-1,2-Dichloroethene						0 / 1	16	8
cis-1,3-Dichloropropene						0 / 1	16	8
Cyclohexane						0 / 1	16	8
Dibromochloromethane						0 / 1	16	8
Dichlorodifluoromethane						0 / 1	16	8
Ethylbenzene						0 / 1	16	8
Isopropylbenzene						0 / 1	16	8
Methyl Acetate	24		24		SD-SA-01-TR	1 / 1	N/A	24
Methyl tert-Butyl Ether						0 / 1	16	8
Methylcyclohexane						0 / 1	16	8
Methylene Chloride						0 / 1	49	25
Styrene						0 / 1	16	8
Tetrachloroethene						0 / 1	16	8
Toluene	13	J	13	J	SD-SA-01-TR	1 / 1	N/A	13
trans-1,2-Dichloroethene						0 / 1	16	8
trans-1,3-Dichloropropene						0 / 1	16	8
Trichloroethene						0 / 1	16	8
Trichlorofluoromethane						0 / 1	16	8
Vinyl Chloride						0 / 1	16	8
Xylene, m/p-						0 / 1	16	8
Xylene, o-						0 / 1	16	8
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	230	115
2,2'-oxybis(1-Chloropropane)						0 / 1	230	115
2,4,5-Trichlorophenol						0 / 1	570	285
2,4,6-Trichlorophenol						0 / 1	230	115
2,4-Dichlorophenol						0 / 1	230	115
2,4-Dimethylphenol						0 / 1	230	115
2,4-Dinitrophenol						0 / 1	570	285
2,4-Dinitrotoluene						0 / 1	230	115
2,6-Dinitrotoluene						0 / 1	230	115
2-Chloronaphthalene						0 / 1	230	115
2-Chlorophenol						0 / 1	230	115
2-Methylnaphthalene						0 / 1	230	115
2-Methylphenol						0 / 1	230	115
2-Nitroaniline						0 / 1	570	285
2-Nitrophenol						0 / 1	230	115

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TABLE 2-45
SEDIMENT DATA SUMMARY - STATION SA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3,3'-Dichlorobenzidine						0 / 1	230	115
3+4-Methylphenols						0 / 1	230	115
3-Nitroaniline						0 / 1	230	115
4,6-Dinitro-2-methylphenol						0 / 1	570	285
4-Bromophenyl-phenylether						0 / 1	230	115
4-Chloro-3-methylphenol						0 / 1	230	115
4-Chloroaniline						0 / 1	230	115
4-Chlorophenyl-phenyl ether						0 / 1	230	115
4-Nitroaniline						0 / 1	570	285
4-Nitrophenol						0 / 1	570	285
Acenaphthene						0 / 1	230	115
Acenaphthylene						0 / 1	230	115
Acetophenone						0 / 1	230	115
Anthracene						0 / 1	230	115
Atrazine						0 / 1	230	115
Benzaldehyde						0 / 1	230	115
Benzo(a)anthracene	110	J	110	J	SD-SA-01-TR	1 / 1	230	110
Benzo(a)pyrene	130	J	130	J	SD-SA-01-TR	1 / 1	230	130
Benzo(b)fluoranthene	180	J	180	J	SD-SA-01-TR	1 / 1	230	180
Benzo(g,h,i)perylene						0 / 1	230	115
Benzo(k)fluoranthene						0 / 1	230	115
Bis(2-Chloroethoxy)methane						0 / 1	230	115
Bis(2-Chloroethyl)ether						0 / 1	230	115
bis(2-Ethylhexyl)phthalate						0 / 1	230	115
Butylbenzylphthalate						0 / 1	230	115
Caprolactam						0 / 1	230	115
Carbazole						0 / 1	230	115
Chrysene	140	J	140	J	SD-SA-01-TR	1 / 1	230	140
Dibenz(a,h)anthracene						0 / 1	230	115
Dibenzofuran						0 / 1	230	115
Diethylphthalate						0 / 1	230	115
Dimethylphthalate						0 / 1	230	115
Di-n-Butylphthalate						0 / 1	230	115
Di-n-octylphthalate						0 / 1	230	115
Fluoranthene	210	J	210	J	SD-SA-01-TR	1 / 1	230	210
Fluorene						0 / 1	230	115
Hexachlorobenzene						0 / 1	230	115
Hexachlorobutadiene sv						0 / 1	230	115
Hexachlorocyclopentadiene						0 / 1	230	115
Hexachloroethane						0 / 1	230	115
Indeno(1,2,3-cd)pyrene						0 / 1	230	115
Isophorone						0 / 1	230	115
Naphthalene sv						0 / 1	230	115
Nitrobenzene						0 / 1	230	115
N-Nitroso-di-n-propylamine						0 / 1	230	115
N-Nitrosodiphenylamine						0 / 1	230	115
Pentachlorophenol						0 / 1	570	285
Phenanthrene	170	J	170	J	SD-SA-01-TR	1 / 1	570	170
Phenol						0 / 1	230	115
Pyrene	280		280		SD-SA-01-TR	1 / 1	230	280
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.5		4.5		SD-SA-01-TR	1 / 1	1.9	4.5
4,4'-DDE	3.9		3.9		SD-SA-01-TR	1 / 1	1.9	3.9
4,4'-DDT	2.2		2.2		SD-SA-01-TR	1 / 1	1.9	2.2
Aldrin						0 / 1	0.93	0.47
alpha-BHC						0 / 1	0.93	0.47

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TABLE 2-45
SEDIMENT DATA SUMMARY - STATION SA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
alpha-Chlordane						0 / 1	0.93	0.47
Aroclor 1016						0 / 1	19	9.5
Aroclor 1221						0 / 1	37	19
Aroclor 1232						0 / 1	19	9.5
Aroclor 1242						0 / 1	19	9.5
Aroclor 1248						0 / 1	19	9.5
Aroclor 1254						0 / 1	19	9.5
Aroclor 1260						0 / 1	19	9.5
beta-BHC						0 / 1	0.93	0.47
delta-BHC						0 / 1	0.93	0.47
Dieldrin						0 / 1	1.9	1.0
Endosulfan I						0 / 1	0.93	0.47
Endosulfan II						0 / 1	1.9	0.95
Endosulfan Sulfate						0 / 1	1.9	1.0
Endrin						0 / 1	1.9	1.0
Endrin Aldehyde						0 / 1	1.9	1.0
Endrin Ketone						0 / 1	1.9	1.0
gamma-BHC (Lindane)						0 / 1	0.93	0.47
gamma-Chlordane						0 / 1	0.93	0.47
Heptachlor						0 / 1	0.93	0.47
Heptachlor Epoxide						0 / 1	0.93	0.47
Methoxychlor						0 / 1	9.3	4.7
Toxaphene						0 / 1	93	47
Metals - mg/Kg								
Aluminum	14300		14300		SD-SA-01-TR	1 / 1	9.14	14300
Antimony	1.1	J	1.1	J	SD-SA-01-TR	1 / 1	0.74	1.1
Arsenic	27.2		27.2		SD-SA-01-TR	1 / 1	1	27
Barium	87.5		87.5		SD-SA-01-TR	1 / 1	0.4	88
Beryllium	1	J	1	J	SD-SA-01-TR	1 / 1	0.2	1.0
Cadmium	1.5		1.5		SD-SA-01-TR	1 / 1	0.6	1.5
Calcium	5500		5500		SD-SA-01-TR	1 / 1	2.14	5500
Chromium	42.3		42.3		SD-SA-01-TR	1 / 1	1	42
Cobalt	13.2	J	13.2	J	SD-SA-01-TR	1 / 1	0.36	13
Copper	57.6		57.6		SD-SA-01-TR	1 / 1	0.44	58
Iron	24200		24200		SD-SA-01-TR	1 / 1	1.4	24200
Lead	456		456		SD-SA-01-TR	1 / 1	0.6	456
Magnesium	4090		4090		SD-SA-01-TR	1 / 1	15.18	4090
Manganese	263		263		SD-SA-01-TR	1 / 1	0.24	263
Mercury	0.2	J	0.2	J	SD-SA-01-TR	1 / 1	0.02	0.20
Nickel	23.2		23.2		SD-SA-01-TR	1 / 1	0.8	23
Potassium	819	J	819	J	SD-SA-01-TR	1 / 1	4.38	819
Selenium						0 / 1	1	0.50
Silver						0 / 1	1	0.50
Sodium	262		262		SD-SA-01-TR	1 / 1	98.04	262
Thallium						0 / 1	1.1	0.55
Vanadium	52.7		52.7		SD-SA-01-TR	1 / 1	0.64	53
Zinc	246	J	246	J	SD-SA-01-TR	1 / 1	1.7	246
AVS-SEM - mg/Kg								
Cadmium	1.0		1.0		SD-SA-01-TR	1 / 1	N/A	1.0
Copper	29		29		SD-SA-01-TR	1 / 1	N/A	29
Lead	264		264		SD-SA-01-TR	1 / 1	N/A	264
Mercury	0.060	J	0.060	J	SD-SA-01-TR	1 / 1	N/A	0.060
Nickel	10		10		SD-SA-01-TR	1 / 1	N/A	10
SEM/AVS Ratio	24		24		SD-SA-01-TR	1 / 1	N/A	24
Sulfide	5.1	J	5.1	J	SD-SA-01-TR	1 / 1	N/A	5.1
Zinc	129	J	129	J	SD-SA-01-TR	1 / 1	N/A	129
Total Organic Carbon (mg/Kg)	170000		170000		SD-SA-01-TR	1 / 1	250	170000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-46
SEDIMENT DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	5 - 9	3.5
1,1,1-Trichloroethane	100	J	100	J	SD-MC-03-TR	1 / 26	7 - 69	14
1,1,2,2-Tetrachloroethane						0 / 24	7 - 46	8.2
1,1,2-Trichloro-1,2,2-trifluoroetha	52	J	52	J	SD-MC-03-TR	1 / 5	10 - 60	24
1,1,2-Trichloroethane						0 / 24	7 - 46	8.2
1,1-Dichloroethane						0 / 24	7 - 69	9.7
1,1-Dichloroethene						0 / 24	7 - 69	9.7
1,2,4-Trichlorobenzene						0 / 3	16 - 46	13
1,2-Dibromo-3-chloropropane						0 / 3	16 - 46	13
1,2-Dibromoethane						0 / 3	16 - 46	13
1,2-Dichlorobenzene						0 / 3	16 - 46	13
1,2-Dichloroethane						0 / 24	7 - 69	9.7
1,2-Dichloroethene(total)						0 / 14	13 - 19	7.5
1,2-Dichloropropane						0 / 22	7 - 46	8.2
1,3-Dichlorobenzene						0 / 3	16 - 46	13
1,4-Dichlorobenzene						0 / 3	16 - 46	13
2-Butanone	17.5	J	680		SD-MC-02	4 / 22	10 - 46	52
2-Hexanone						0 / 22	7 - 46	8.2
4-Methyl-2-pentanone						0 / 17	13 - 46	8.5
Acetone	23	J	2200	J	SD-MC-02	12 / 24	10 - 220	185
Benzene	4	J	4	J	SD-25-02-ME	1 / 24	5 - 46	7.9
Bromodichloromethane						0 / 22	7 - 46	8.2
Bromoform						0 / 22	7 - 46	8.2
Bromomethane						0 / 22	10 - 84	10
Carbon Disulfide	3	J	3	J	SD-26-02-FW	2 / 22	7 - 46	7.9
Carbon Tetrachloride						0 / 22	7 - 46	8.7
Chlorobenzene						0 / 22	7 - 46	8.2
Chloroethane						0 / 22	7 - 46	8.2
Chloroform						0 / 24	10 - 46	9.4
Chloromethane						0 / 22	7 - 46	8.2
cis-1,2-Dichloroethene						0 / 10	7 - 46	9.3
cis-1,3-Dichloropropene						0 / 22	7 - 46	8.2
Cyclohexane						0 / 3	16 - 46	13
Dibromochloromethane						0 / 22	7 - 46	8.2
Dichlorodifluoromethane						0 / 3	16 - 46	13
Ethylbenzene						0 / 24	5 - 46	7.8
Isopropylbenzene						0 / 3	16 - 46	13
Methyl Acetate	24		350	J	SD-MC-03-TR	5 / 5	10 - 60	136
Methyl isobutyl ketone (MIBK)						0 / 5	7 - 25	7.2
Methyl tert-Butyl Ether						0 / 3	16 - 46	13
Methylcyclohexane						0 / 3	16 - 46	13
Methylene chloride						0 / 26	7 - 160	16
Naphthalene						0 / 2	36 - 69	26
Styrene						0 / 22	7 - 46	8.2
Tetrachloroethene						0 / 24	7 - 69	9.7
Toluene	7.9	J	73	J	SD-MC-03-TR	3 / 24	7 - 60	12
trans-1,2-Dichloroethene						0 / 10	7 - 69	13
trans-1,3-Dichloropropene						0 / 22	7 - 46	8.2
Trichloroethene						0 / 24	7 - 46	8.2
Trichlorofluoromethane						0 / 3	16 - 46	13
Vinyl chloride						0 / 24	7 - 69	9.7
Xylene, m/p-						0 / 10	12 - 50	13
Xylene, o-						0 / 10	7 - 46	9.3
						0 / 14	13 - 19	7.5
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 5	230 - 460	187
1,2,4-Trichlorobenzene sv						0 / 19	300 - 3100	353
1,2-Dichlorobenzene						0 / 19	300 - 3100	353
1,3-Dichlorobenzene						0 / 19	300 - 3100	353
1,4-Dichlorobenzene						0 / 19	300 - 3100	353
2,2'-oxybis(1-Chloropropane)						0 / 19	230 - 3100	341
2,4,5-Trichlorophenol						0 / 24	570 - 7400	792
2,4,6-Trichlorophenol						0 / 24	230 - 3100	319
2,4-Dichlorophenol						0 / 24	230 - 3100	319
2,4-Dimethylphenol						0 / 24	230 - 3100	319
2,4-Dinitrophenol						0 / 24	570 - 7400	792
2,4-Dinitrotoluene						0 / 24	230 - 3100	319
2,6-Dinitrotoluene						0 / 24	230 - 3100	319
2-Chloronaphthalene						0 / 24	230 - 3100	319
2-Chlorophenol						0 / 24	230 - 3100	319
2-Methylnaphthalene	22	J	360	J	SD-24-02-FW	6 / 26	67 - 3100	257
2-Methylphenol						0 / 24	230 - 3100	319
2-Nitroaniline						0 / 24	570 - 7400	792
2-Nitrophenol						0 / 24	230 - 3100	319
3,3'-Dichlorobenzidine						0 / 24	230 - 3100	319
3+4-Methylphenols						0 / 5	230 - 460	187
3-Nitroaniline						0 / 24	230 - 7400	659
4,6-Dinitro-2-methylphenol						0 / 24	570 - 7400	792
4-Bromophenyl-phenylether						0 / 24	230 - 3100	319
4-Chloro-3-methylphenol						0 / 24	230 - 3100	319

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TABLE 2-46
SEDIMENT DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Chloroaniline						0 / 24	230 - 3100	319
4-Chlorophenyl-phenyl ether						0 / 24	230 - 3100	319
4-Methylphenol	190	J	190	J	SD-MC-01	1 / 19	320 - 3100	356
4-Nitroaniline						0 / 24	570 - 7400	792
4-Nitrophenol						0 / 24	570 - 7400	792
Acenaphthene	50	J	1400	J	SD-24-02-FW	8 / 26	67 - 3100	301
Acenaphthylene	22	J	800	J	SD-24-02-FW	10 / 26	67 - 3100	304
Acetophenone						0 / 5	230 - 460	187
Anthracene	48	J	1900	J	SD-24-02-FW	13 / 26	67 - 3100	406
Atrazine						0 / 5	230 - 460	187
Benzaldehyde						0 / 5	230 - 460	187
Benzo(a)anthracene	110	J	5900		SD-24-02-FW	18 / 26	67 - 1000	1151
Benzo(a)pyrene	130	J	5500		SD-24-02-FW	18 / 26	67 - 1000	1117
Benzo(b)fluoranthene	150	J	10000		SD-24-02-FW	23 / 26	67 - 1000	1534
Benzo(g,h,i)perylene	190	J	2200	J	SD-25-02-FW	11 / 26	67 - 1000	511
Benzo(k)fluoranthene	400		9600		SD-24-02-FW	16 / 26	67 - 1000	1420
bis(2-Chloroethoxy)methane						0 / 24	230 - 3100	319
bis(2-Chloroethyl)ether						0 / 24	230 - 3100	319
bis(2-chloroisopropyl)ether						0 / 5	300 - 1000	236
bis(2-Ethylhexyl)phthalate	94	J	1200		SD-MC-03	7 / 24	230 - 3100	369
Butylbenzylphthalate	47	J	87	J	SD-24-03-FW	2 / 24	230 - 3100	306
Caprolactam						0 / 5	230 - 460	187
Carbazole	48	J	990	J	SD-24-02-FW	8 / 24	230 - 3100	327
Chrysene	140	J	7300		SD-24-02-FW	18 / 26	67 - 1000	1389
Dibenz(a,h)anthracene	110	J	1100	J	SD-25-02-FW	11 / 26	67 - 1000	289
Dibenzofuran	120	J	1000	J	SD-24-02-FW	5 / 24	230 - 3100	309
Diethylphthalate	48	J	230	J	SD-24-02-FW	3 / 25	230 - 3100	273
Dimethylphthalate						0 / 24	230 - 3100	319
Di-n-butylphthalate	150	J	240	J	SD-26-03-FW	6 / 24	230 - 3100	301
Di-n-octylphthalate	220	J	220	J	SD-26-02-FW	1 / 24	230 - 3100	319
Fluoranthene	71	J	15000		SD-24-02-FW	24 / 26	67 - 1000	2547
Fluorene	44	J	2800		SD-24-02-FW	11 / 26	67 - 3100	378
Hexachlorobenzene						0 / 24	230 - 3100	319
Hexachlorobutadiene sv						0 / 24	230 - 3100	319
Hexachlorocyclopentadiene						0 / 24	230 - 3100	394
Hexachloroethane						0 / 24	230 - 3100	319
Indeno(1,2,3-cd)pyrene	160	J	3700	J	SD-25-02-FW	14 / 26	67 - 1000	685
Isophorone						0 / 24	230 - 3100	319
Naphthalene	23	J	520	J	SD-24-02-FW	6 / 26	67 - 3100	272
Nitrobenzene						0 / 24	230 - 3100	319
N-Nitroso-di-n-propylamine						0 / 24	230 - 3100	319
N-nitrosodiphenylamine						0 / 24	230 - 3100	319
Pentachlorophenol						0 / 24	570 - 7400	792
Phenanthrene	170	J	12000		SD-24-02-FW	18 / 26	67 - 1000	1534
Phenol						0 / 24	230 - 3100	319
Pyrene	81	J	11000		SD-24-02-FW	19 / 26	67 - 1000	2067
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.32 - 3.2	0.88
4,4'-DDD	1.1	J	390		SD-24-03-ME	20 / 26	0.32 - 31	48
4,4'-DDE	1.6	J	470	J	SD-MC-01	19 / 26	0.32 - 31	30
4,4'-DDT	2.1	J	180	J	SD-MC-01	16 / 26	0.32 - 30	22
Aldrin	0.29	J	1.6	J	SD-24-02-FW	3 / 26	0.16 - 16	2.7
alpha-BHC	0.31	J	0.31	J	SD-24-02-FW	1 / 26	0.16 - 16	2.7
alpha-Chlordane	1.3	J	69	J	SD-MC-03	6 / 26	0.16 - 15	6.6
Aroclor 1016						0 / 26	3 - 310	52
Aroclor 1221						0 / 26	3 - 620	105
Aroclor 1232						0 / 26	3 - 310	52
Aroclor 1242						0 / 26	3 - 310	52
Aroclor 1248	56	J	290	J	SD-24-03-ME	2 / 26	3 - 310	65
Aroclor 1254						0 / 26	3 - 310	52
Aroclor 1260	47		200		SD-24-03-ME	2 / 26	3 - 310	61
beta-BHC	0.4	J	0.75	J	SD-23-01-FW	2 / 26	0.16 - 16	2.7
delta-BHC						0 / 26	0.16 - 16	2.8
Dieldrin	1.1	J	18		SD-24-02-FW	6 / 26	0.32 - 30	4.9
Endosulfan I	0.22	J	66	J	SD-25-02-FW	8 / 26	0.16 - 14	6.3
Endosulfan II	0.33	J	9.4	J	SD-25-02-FW	5 / 26	0.32 - 30	5.1
Endosulfan Sulfate	6.6		11	J	SD-25-02-FW	3 / 26	0.32 - 30	5.2
Endrin	0.3	J	5.1		SD-24-02-FW	4 / 26	0.32 - 31	5.4
Endrin Aldehyde	1.1	J	5.9	J	SD-24-03-ME	3 / 21	0.32 - 31	6.8
Endrin Ketone	2.7	J	9.1	J	SD-25-02-FW	4 / 26	0.32 - 30	5.0
gamma-BHC (Lindane)	1.9	J	1.9	J	SD-24-02-FW	1 / 26	0.16 - 16	2.8
gamma-Chlordane	0.31	J	4.6		SD-24-03-FW	6 / 26	0.16 - 16	2.9
Heptachlor	0.84	J	0.84	J	SD-24-02-FW	1 / 26	0.16 - 16	2.8
Heptachlor Epoxide	0.36	J	1.4	J	SD-24-02-FW	3 / 26	0.16 - 16	2.8
Methoxychlor						0 / 26	1.6 - 160	27
Toxaphene						0 / 26	7.6 - 1600	266

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TABLE 2-46
SEDIMENT DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	1100		20200		SD-MC-03-TR	27 / 27	3.4 - 9.14	8581
Antimony	0.5	J	5.6		SD-MC-04-TR	20 / 27	0.062 - 1.4	1.0
Arsenic	2.5		44.5		SD-MC-04-TR	27 / 27	0.21 - 1	17
Barium	5.7		173		SD-MC-04-TR	27 / 27	0.018 - 0.4	57
Beryllium	0.15		1.3	J	SD-MC-03-TR	24 / 27	0.027 - 0.22	0.56
Cadmium	0.08699		6.1		SD-MC-04	20 / 27	0.0044 - 0.6	1.3
Calcium	610		10900		SD-MC-01-TR	22 / 22	1.6 - 2.14	3448
Chromium	8.9		512		SD-MC-04-TR	27 / 27	0.053 - 1	89
Cobalt	0.76		21.8	J	SD-MC-04-TR	27 / 27	0.36 - 0.37	8.5
Copper	1.9		344		SD-MC-04-TR	27 / 27	0.08 - 0.44	63
Cyanide						0 / 14	0.52 - 1.4	0.39
Iron	2040		51600		SD-MC-04-TR	27 / 27	0.55 - 1.4	16345
Lead	5.6	J	755	J	SD-25-02-FW	27 / 27	0.26 - 0.6	194
Magnesium	324		5810		SD-MC-03-TR	22 / 22	0.8 - 15.18	2878
Manganese	12.6	J	1980		SD-MC-04-TR	27 / 27	0.018 - 0.24	368
Mercury	0.021	J	0.71		SD-24-03-ME	19 / 26	0.005 - 0.08	0.19
Nickel	1.1		32.1		SD-MC-03-TR	27 / 27	0.14 - 0.8	15
Potassium	126		2410		SD-26-01-FW	22 / 22	2.6 - 4.38	927
Selenium	0.88	J	3.2	J	SD-25-02-FW	9 / 27	0.049 - 1.1	0.81
Silver	0.085	J	2.9		SD-24-03-FW	8 / 26	0.0088 - 1	0.50
Sodium	66.5		5400		SD-MC-03-TR	12 / 22	0.21 - 187	398
Thallium	1		2.2		SD-25-02-FW	2 / 26	0.038 - 2	0.50
Vanadium	2.5		148		SD-24-03-FW	27 / 27	0.071 - 0.64	35
Zinc	10.4	J	645	J	SD-MC-03-TR	27 / 27	0.16 - 1.7	195
AVS-SEM - mg/Kg								
Arsenic						0 / 2	3.745	1.9
Cadmium	0.11		6.0		SD-MC-04	20 / 27	0.09 - 5.6	1.5
Copper	7.0		279		SD-MC-04	15 / 27	0.96 - 70.5	36
Lead	11	J	704		SD-25-02-FW	26 / 27	1.8	169
Mercury	0.0040		0.10	J	SD-MC-04-TR	7 / 21	0.003 - 10.03	0.26
Nickel	2.9	J	22	J	SD-24-03-ME	7 / 27	1.2 - 233	27
SEM/AVS Ratio	0		64		SD-MC-04-TR	27 / 27	N/A	7.8
Sulfide	4.5	J	3852	J	SD-MC-02	25 / 27	4.173 - 4.494	345
Zinc	11		569	J	SD-MC-02	24 / 27	4.3 - 43.8	142
Total Combustible Organics - mg/Kg	2810		427000		SD-23-03-FW	8 / 8	2000	109001
Total Organic Carbon - mg/Kg	7650		370000	J	SD-MC-02	19 / 19	250	129647

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-47
SEDIMENT DATA HITS TABLE - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-23-01-FW	SD-23-02-FW	SD-23-03-FW
VOCs (ug/Kg)			
No Detections			
SVOCs (ug/Kg)			
2-Methylnaphthalene	600 U	67 J	R
Acenaphthene	600 U	120 J	R
Acenaphthylene	600 U	450 J	R
Anthracene	600 U	530	R
Benzo(a)anthracene	600 U	1800	R
Benzo(a)pyrene	600 U	1700	R
Benzo(b)fluoranthene	600 U	2300	R
Benzo(k)fluoranthene	600 U	2100	R
bis(2-Ethylhexyl)phthalate	600 U	120 J	R
Chrysene	600 U	2000	R
Diethylphthalate	600 U	48 J	170 J
Fluoranthene	71 J	3100	R
Fluorene	600 U	340 J	R
Phenanthrene	600 U	3000	R
Pyrene	81 J	3600	R
PCB/Pesticides (ug/Kg)			
4,4'-DDD	60	84 J	R
4,4'-DDE	11	17 J	R
4,4'-DDT	6 U	22 J	R
beta-BHC	0.75 J	2.4 U	R
Dieldrin	1.1 J	4.6 U	R
Endrin	6 U	1.6 J	R
gamma-Chlordane	3.1 U	0.31 J	R
Metals (mg/Kg)			
Aluminum	1100	5110	5860 J
Antimony	0.74 J	0.45 UJ	1.7 J
Arsenic	5.2	17.8	14.8 J
Barium	5.7	21.3	25.8 J
Beryllium	0.19 U	0.31	1 J
Cadmium	0.08699	0.1	0.9 J
Calcium	622	925	6410 J
Chromium	29.1 J	22.4 J	13.7 J
Cobalt	0.76	3.2	1.9 J
Copper	1.9	9.5	9 J
Iron	2040	9220	3500 J
Lead	6.5	19.7	5.6 J
Magnesium	324	2230	858 J
Manganese	12.6 J	91.1 J	133 J
Mercury	0.07 J	0.068 J	R
Nickel	1.1	8.3	3.6 J
Potassium	126	780	173 J
Selenium	0.89 U	0.56 U	3 J
Sodium	66.5	123	264 J
Vanadium	2.5	12.8	18 J
Zinc	11.5	30.6	10.4 J
AVS-SEM (mg/Kg)			
Cadmium	0.14 U	0.1 U	0.33
Copper	0.96 U	12.8 J	21.7 U
Lead	1.8 U	11.1 J	19.9 J
SEM/AVS Ratio	0	0.058	0.33
Sulfide	29.532	140.598	9.63
TOC/TCO (mg/Kg)			
Total Combustible Organics	24300	4800	427000

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TABLE 2-48
SEDIMENT DATA HITS TABLE - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-24-01-FW	SD-24-02-FW	SD-24-03-FW	SD-24-03-ME
VOCs (ug/Kg)				
No Detections				
SVOCs (ug/Kg)				
2-Methylnaphthalene	460 U	360 J	420 U	23 J
Acenaphthene	120 J	1400 J	420 U	50 J
Acenaphthylene	56 J	800 J	420 U	44 J
Anthracene	98 J	1900 J	48 J	250
Benzo(a)anthracene	440 J	5900	520	960
Benzo(a)pyrene	400 J	5500	350 J	790 J
Benzo(b)fluoranthene	740	10000	1100	880
Benzo(g,h,i)perylene	460 U	920 J	210 J	550 J
Benzo(k)fluoranthene	690	9600	1100	400
bis(2-Ethylhexyl)phthalate	400 J	2100 U	430 J	NA
Butylbenzylphthalate	47 J	2100 U	87 J	NA
Carbazole	460 U	990 J	48 J	NA
Chrysene	550	7300	520	920
Dibenz(a,h)anthracene	460 U	500 J	420 U	120 J
Dibenzofuran	460 U	1000 J	420 U	NA
Diethylphthalate	460 U	230 J	420 U	NA
Fluoranthene	880	15000	840	2600
Fluorene	91 J	2800	44 J	130
Indeno(1,2,3-cd)pyrene	460 U	1700 J	210 J	620 J
Naphthalene	460 U	520 J	420 U	23 J
Phenanthrene	460	12000	290 J	1300
Pyrene	680	11000	870	2400
PCB/Pesticides (ug/Kg)				
4,4'-DDD	35	98	39	390
4,4'-DDE	5.8	10	17	37
4,4'-DDT	20	130	27 J	24 J
Aldrin	0.54 J	1.6 J	0.29 J	1.6 U
alpha-BHC	2.4 U	0.31 J	2.2 U	1.6 U
alpha-Chlordane	2.4 U	2.2 U	5.3	2 J
Aroclor 1248	46 U	43 U	42 U	290 J
Aroclor 1260	46 U	43 U	42 U	200
beta-BHC	0.4 J	2.2 U	2.2 U	1.6 U
Dieldrin	1.5 J	18	4.2 U	3.2 U
Endosulfan I	2.4 U	2.2 U	0.22 J	1.6 U
Endosulfan II	4.6 U	7.1	2.3 J	3.2 U
Endosulfan sulfate	6.6	4.3 U	4.2 U	3.2 U
Endrin	4.6 U	5.1	0.3 J	3.2 U
Endrin aldehyde	4.6 U	4.3 U	1.1 J	5.9 J
Endrin Ketone	2.7 J	4.3	4.2 U	3.2 U
gamma-BHC (Lindane)	2.4 U	1.9 J	2.2 U	1.6 U
gamma-Chlordane	2.4 U	1.5 J	4.6	4.2
Heptachlor	2.4 UJ	0.84 J	2.2 UJ	1.6 U
Heptachlor epoxide	2.4 U	1.4 J	0.48 J	1.6 U

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TABLE 2-48
SEDIMENT DATA HITS TABLE - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-24-01-FW	SD-24-02-FW	SD-24-03-FW	SD-24-03-ME
Metals (mg/Kg)				
Aluminum	2560	4020	13700	8440 J
Antimony	0.48 UJ	0.5 J	1.4 UJ	1.2 J
Arsenic	3.8	4.8	40.6	30.7
Barium	13.3	16.2	67.3	43.6
Beryllium	0.19 U	0.22 U	1.2	0.8 J
Cadmium	0.24	0.22	0.96	2
Calcium	610	1010	3030	2410
Chromium	10.3 J	16.8 J	277 J	410 J
Cobalt	1.9	2.6	8.2	12.1 J
Copper	19.8	11.6	84.5	130
Iron	4790	6720	20900	13200 J
Lead	81.3	73.9	581	566 J
Magnesium	1140	1850	4370	2880
Manganese	50.4 J	68.4 J	230 J	131
Mercury	0.033 J	0.021 J	0.7 J	0.71
Nickel	6	7.2	26.1	23.7 J
Potassium	424	592	822	1170 J
Selenium	0.6 U	0.48 U	2.1	0.91 J
Silver	0.3 U	0.24 U	2.9	2.5 J
Sodium	102	106	382	516
Vanadium	7.1	12.7	148	80.3
Zinc	47.6	47	129	251 J
AVS-SEM (mg/Kg)				
Cadmium	0.13	6	1.1	5.6 U
Copper	12.1 J	7.2 J	93.5 J	3.175 UJ
Lead	86.7 J	81.1 J	522 J	370.888 J
Nickel	34.8 U	2.4 U	109 U	22.3022 J
SEM/AVS Ratio	0.32	0.042	18	0.57
Sulfide	120.696	879.54	28.89	327.42
Zinc	38.4 J	38.2 J	147 J	243.171 J
TOC/TCO (mg/Kg)				
Total Combustible Organics	2810	17900	183000	153000 J

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TABLE 2-49
SEDIMENT DATA HITS TABLE - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-25-01-FW	SD-25-02-FW	SD-25-02-ME	SD-25-03-FW
VOCs (ug/Kg)				
Acetone	23 J	51 J	NA	13 U
Benzene	18 U	19 U	4 J	13 U
SVOCs (ug/Kg)				
2-Methylnaphthalene	600 UJ	3100 UJ	22 J	420 UJ
Acenaphthene	600 UJ	3100 UJ	69 J	420 UJ
Acenaphthylene	600 UJ	3100 UJ	22 J	420 UJ
Anthracene	600 UJ	3100 UJ	330	220 J
Benzo(a)anthracene	510 J	4900 J	1300	990 J
Benzo(a)pyrene	410 J	5100 J	1300	710 J
Benzo(b)fluoranthene	480 J	5800 J	1500 J	920 J
Benzo(g,h,i)perylene	190 J	2200 J	650	210 J
Benzo(k)fluoranthene	630 J	6700 J	740 J	750 J
Carbazole	600 UJ	3100 UJ	NA	200 J
Chrysene	500 J	5400 J	1400	800 J
Di-n-butylphthalate	180 J	3100 UJ	NA	150 J
Dibenz(a,h)anthracene	600 UJ	1100 J	220	130 J
Fluoranthene	1000 J	11000 J	2500	1900 J
Fluorene	600 UJ	3100 UJ	120	420 UJ
Indeno(1,2,3-cd)pyrene	270 J	3700 J	670	410 J
Naphthalene	600 UJ	3100 UJ	32 J	420 UJ
Phenanthrene	450 J	3100 J	1600	1100 J
Pyrene	750 UJ	8100 J	2300	1300 J
PCB/Pesticides (ug/Kg)				
4,4'-DDD	30 UJ	31 UJ	11 J	21 UJ
4,4'-DDE	30 UJ	31 UJ	4.4 J	21 UJ
4,4'-DDT	30 UJ	5.8 J	2.1 J	21 UJ
alpha-Chlordane	15 UJ	8.4 J	1.3 J	11 UJ
Aroclor 1248	300 UJ	310 UJ	56 J	210 UJ
Aroclor 1260	300 UJ	310 UJ	47	210 UJ
Dieldrin	30 UJ	6.3 J	0.32 U	21 UJ
Endosulfan I	8.8 J	66 J	0.16 U	7.2 J
Endosulfan II	30 UJ	9.4 J	0.33 J	21 UJ
Endosulfan sulfate	30 UJ	11 J	0.32 U	21 UJ
Endrin	30 UJ	31 UJ	0.98 J	21 UJ
Endrin aldehyde	30 UJ	31 UJ	4.4 J	21 UJ
Endrin ketone	30 UJ	9.1 J	0.32 U	21 UJ
gamma-Chlordane	15 UJ	16 UJ	1.3 J	11 UJ
Heptachlor epoxide	15 UJ	16 UJ	0.36 J	11 UJ

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TABLE 2-49
SEDIMENT DATA HITS TABLE - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-25-01-FW	SD-25-02-FW	SD-25-02-ME	SD-25-03-FW
Metals (mg/Kg)				
Aluminum	11600	13400	7190	8360
Antimony	0.84 UJ	1.7	0.64 J	0.84
Arsenic	6	16.2	5.4	2.5
Barium	27.1	50.5	48.5	18
Beryllium	0.35	0.52	0.37	0.23
Cadmium	0.07 U	0.8	0.78 J	0.048 U
Calcium	3210	4680	2150	1180
Chromium	22.8	60.6	26.1	13.4
Cobalt	7.6	9.9	8.1	6.1
Copper	34.9	93.7	52.7	18.4
Iron	16400	19000 J	14700	11200 J
Lead	328 J	755 J	210	55 J
Magnesium	3920	5350	3490	3000
Manganese	115	175 J	190	87.1 J
Mercury	0.2	0.55 J	0.1	0.081 J
Nickel	12.8	17.1	14.6	8.7
Potassium	964	1690	1210	804
Selenium	1.1 UJ	3.2 J	0.48 UJ	0.59 U
Silver	0.53 U	0.68 U	0.2 J	0.24 U
Thallium	1.2 U	2.2	0.14 U	1
Vanadium	29.1	39.5	29.7 J	20.4
Zinc	62.6	307	178	35
AVS-SEM (mg/Kg)				
Cadmium	0.13 U	0.83	5.6 U	0.1 U
Copper	31.1 U	70.5 U	6.985	57.5 U
Lead	306	704	186.48	37.5
Mercury	0.004 U	0.01 U	R	0.03
Nickel	94 U	147 U	2.9345 J	151 U
SEM/AVS Ratio	2.5	4.2	1.43	1.2
Sulfide	22.47	41.73	65.163	9.63
Zinc	16	137	121.256 J	11.2
TOC/TCO (mg/Kg)				
Total Organic Carbon	52600	71600	NA	12000
Total Combustible Organics	NA	NA	59200 J	NA

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TABLE 2-50
SEDIMENT DATA HITS TABLE - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-26-01-FW	SD-26-02-FW	SD-26-03-FW
VOCs (ug/Kg)			
2-Butanone	17 U	17.5 J	18 U
Acetone	45 J	130 J	67 J
Carbon Disulfide	17 U	3 J	18 U
SVOCs (ug/Kg)			
Benzo(b)fluoranthene	190 J	150 J	180 J
Di-n-butylphthalate	180 J	170 J	240 J
Di-n-octylphthalate	560 UJ	220 J	590 UJ
Fluoranthene	250 J	190 J	210 J
PCB/Pesticides (ug/Kg)			
4,4'-DDD	59 J	16.5 J	17 J
4,4'-DDE	51 J	12.75 J	9.5 J
4,4'-DDT	30 J	17.85 J	29 UJ
Endosulfan I	14 UJ	11 UJ	6.9 J
gamma-Chlordane	14 UJ	1 J	15 UJ
Metals (mg/Kg)			
Aluminum	13500	8345	8380
Antimony	0.79 UJ	0.81 J	0.7 J
Arsenic	9.4	4.75	5
Barium	73.1	44.4	35.7
Beryllium	0.51	.255	0.33
Calcium	1860	1205	1300
Chromium	32.6	20.8	8.9
Cobalt	8	5.95	3.7
Copper	42.9	16.55	10
Iron	17100	12500	8810
Lead	103 J	25.3 J	42.5 J
Magnesium	5100	4130	1430
Manganese	315	224	134
Nickel	18.9	12.7	5.9
Potassium	2410	2310	249
Vanadium	37.6	22.9	18.8
Zinc	82.8	44.1	44.9
AVS-SEM (mg/Kg)			
Cadmium	0.2	0.11	0.22
Lead	81	31.05	65.4
Mercury	0.005 U	0.004	0.005 U
SEM/AVS Ratio	0.10	0.089	0.17
Sulfide	436.56	256.8	205.44
Zinc	63.3	36.75	50
TOC/TCO (mg/Kg)			
Total Organic Carbon	36800	12050	47200

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TABLE 2-51
SEDIMENT DATA HITS TABLE - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-27-01-FW	SD-27-02-FW	SD-27-03-FW
VOCs (ug/Kg)			
Acetone	44 J	13 U	57 J
Carbon Disulfide	14 U	13 U	3 J
SVOCs (ug/Kg)			
Acenaphthene	290 J	420 UJ	430 UJ
Acenaphthylene	470 UJ	350 J	430 UJ
Anthracene	990 J	300 J	430 UJ
Benzo(a)anthracene	2400 J	1500 J	520 J
Benzo(a)pyrene	930 J	830 J	310 J
Benzo(b)fluoranthene	1500 J	950 J	370 J
Benzo(k)fluoranthene	1500 J	1400 J	540 J
Carbazole	520 J	130 J	430 UJ
Chrysene	2000 J	1400 J	510 J
Di-n-butylphthalate	470 UJ	160 J	430 UJ
Dibenz(a,h)anthracene	210 J	210 J	430 UJ
Dibenzofuran	210 J	420 UJ	430 UJ
Fluoranthene	5500 J	3400 J	1300 J
Fluorene	620 J	180 J	430 UJ
Indeno(1,2,3-cd)pyrene	450 J	500 J	160 J
Phenanthrene	4500 J	1500 J	730 J
Pyrene	3400 J	2400 J	890 UJ
PCB/Pesticides (ug/Kg)			
4,4'-DDD	5.7 J	21 UJ	6.2 J
4,4'-DDE	5.5 J	3.5 J	4.6 J
4,4'-DDT	15 J	14 J	5.6 J
Dieldrin	24 UJ	4.7 J	2.2 J
Endosulfan I	7.2 J	35 J	8.2 J
Endosulfan II	24 UJ	5.3 J	22 UJ
Endosulfan sulfate	24 UJ	9.1 J	22 UJ
Endrin ketone	24 UJ	6.1 J	22 UJ
Metals (mg/Kg)			
Aluminum	3690	4300	5050
Antimony	0.64 UJ	0.43 UJ	0.56 J
Arsenic	6.8	5.1	4.1
Barium	30.9	16.6	21.8
Beryllium	0.21	0.2	0.15
Cadmium	0.4	0.053 UJ	0.16 U
Calcium	1310	1020	1160
Chromium	9	13.4	15.1
Cobalt	5.8	3.5	4.9
Copper	8.1	7.1	6.8
Iron	7640	7990	7710
Lead	17.9 J	28 J	21 J
Magnesium	1500	2090	2390
Manganese	297	247	183
Nickel	6.6	8.8	10.3
Potassium	516	711	636
Vanadium	9.3	11.3	10.2
Zinc	59.8	33	112
AVS-SEM (mg/Kg)			
Cadmium	0.39	0.09 U	0.17
Lead	15.7	17.5	17.7
SEM/AVS Ratio	0.071	0.60	0.074
Sulfide	446.19	19.26	526.44
Zinc	59.3	17.9	73.8
TOC/TCO (mg/Kg)			
Total Organic Carbon	13400	7650	10000

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TABLE 2-52
SEDIMENT DATA HITS TABLE - STATION 01IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-01	SD-MC-01-TR
VOCs (ug/Kg)		
Acetone	120 J	220 UJ
Methyl Acetate	NA	210
Toluene	10 U	7.9 J
SVOCs (ug/Kg)		
4-Methylphenol	190 J	NA
Acenaphthylene	150 J	380 U
Anthracene	150 J	380 U
Benzo(a)anthracene	640	210 J
Benzo(a)pyrene	810	250 J
Benzo(b)fluoranthene	920	310 J
Benzo(g,h,i)perylene	500	380 U
Benzo(k)fluoranthene	840	380 UJ
bis(2-Ethylhexyl)phthalate	94 J	380 U
Chrysene	1100	250 J
Dibenz(a,h)anthracene	110 J	380 U
Fluoranthene	1500	400
Indeno(1,2,3-cd)pyrene	530	380 U
Phenanthrene	850	220 J
Pyrene	1700	440
PCB/Pesticides (ug/Kg)		
4,4'-DDD	200 J	5.7
4,4'-DDE	470 J	11
4,4'-DDT	180 J	3 J
alpha-Chlordane	23 J	1.6 U
Metals (mg/Kg)		
Aluminum	4740	8560
Antimony	0.81 J	1.4 J
Arsenic	12.2	27.8
Barium	59	95.7
Beryllium	0.39 J	0.71 J
Cadmium	0.5	2.2
Calcium	NA	10900
Chromium	12.2 J	28.4
Cobalt	6.4	8.3 J
Copper	31.6	70.8
Iron	11700	19400
Lead	188	252
Magnesium	NA	2570
Manganese	396	225
Mercury	0.31	0.03 J
Nickel	9.2	16.6
Potassium	NA	547 J
Selenium	0.94 J	1 U
Silver	0.085 J	1 U
Sodium	NA	334
Vanadium	20	38.2
Zinc	131	282 J
AVS-SEM (mg/Kg)		
Cadmium	1.008	1.12
Copper	12.065	32.28975
Lead	132.608	124.67224
Mercury	NA	0.04012 J
Nickel	16.4332 U	8.152041
SEM/AVS Ratio	0.35 J	4.3
Sulfide	237.54 J	25.68 J
Zinc	117.72	143.86038 J
TOC/TCO (mg/Kg)		
Total Organic Carbon	160000 J	270000

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TABLE 2-53
SEDIMENT DATA HITS TABLE - STATION 02IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-02
VOCs (ug/Kg)	
2-Butanone	680
Acetone	2200 J
SVOCs (ug/Kg)	
No Detections	
PCB/Pesticides (ug/Kg)	
4,4'-DDD	25 J
4,4'-DDE	13
Metals (mg/Kg)	
Aluminum	8620
Antimony	1.4 J
Arsenic	29.9
Barium	80.7
Beryllium	1.1
Cadmium	2.9
Chromium	155 J
Cobalt	12.1
Copper	65.7
Iron	25500
Lead	197
Manganese	837
Mercury	0.35
Nickel	19.6
Selenium	1.2 J
Silver	0.47
Vanadium	51.5
Zinc	377
AVS-SEM (mg/Kg)	
Cadmium	4.256
Copper	8.89
Lead	248.64
SEM/AVS Ratio	0.09 J
Sulfide	3852 J
Zinc	568.98 J
TOC/TCO (mg/Kg)	
Total Organic Carbon	370000 J

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TABLE 2-54
SEDIMENT DATA HITS TABLE - STATION 03IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-03	SD-MC-03-TR
VOCs (ug/Kg)		
1,1,1-Trichloroethane	7 UJ	100 J
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	52 J
2-Butanone	60 J	R
Acetone	210 J	400 J
Methyl Acetate	NA	350 J
Toluene	7 UJ	73 J
SVOCs (ug/Kg)		
2-Methylnaphthalene	93 J	370 U
Acenaphthene	110 J	370 U
Acenaphthylene	390	370 U
Anthracene	440	370 U
Benzo(a)anthracene	2100	370 U
Benzo(a)pyrene	3300	370 U
Benzo(b)fluoranthene	4900	180 J
Benzo(g,h,i)perylene	1700	370 U
Benzo(k)fluoranthene	3200	370 UJ
bis(2-Ethylhexyl)phthalate	1200	370 U
Carbazole	370	370 U
Chrysene	4400	370 U
Dibenz(a,h)anthracene	530	370 U
Dibenzofuran	120 J	370 U
Fluoranthene	6400	220 J
Fluorene	210 J	370 U
Indeno(1,2,3-cd)pyrene	2400	370 U
Naphthalene	160 J	370 U
Phenanthrene	3300	370 U
Pyrene	6100	230 J
PCB/Pesticides (ug/Kg)		
4,4'-DDD	97 J	1.1 J
4,4'-DDE	43 J	1.6 J
4,4'-DDT	26 J	2.9 U
alpha-Chlordane	69 J	1.5 U
Metals (mg/Kg)		
Aluminum	15200	20200
Antimony	0.93 J	1.5
Arsenic	21.4	34.4
Barium	89.6	155
Beryllium	0.95	1.3 J
Cadmium	2.8	4.1
Calcium	NA	6570
Chromium	46.2 J	71.1
Cobalt	13.2	19.2 J
Copper	75	125
Iron	20300	27700
Lead	153	259
Magnesium	NA	5810
Manganese	383	423
Mercury	0.26	0.09 J
Nickel	24.3	32.1
Potassium	NA	2330 J
Selenium	0.88 J	1 U
Silver	0.9	1 U
Sodium	NA	5400
Vanadium	43.5	56
Zinc	457	645 J

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TABLE 2-54
SEDIMENT DATA HITS TABLE - STATION 03IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-03	SD-MC-03-TR
AVS-SEM (mg/Kg)		
Cadmium	2.464	2.6656
Copper	44.45	70.74535
Lead	165.76	168.72296
Mercury	NA	0.08024 J
Nickel	42.2568 U	17.413323
SEM/AVS Ratio	0.16 J	59.8
Sulfide	1444.5 J	4.494 J
Zinc	366.24 J	400.15644 J
TOC/TCO (mg/Kg)		
Total Organic Carbon	110000 J	330000

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TABLE 2-55
SEDIMENT DATA HITS TABLE - STATION 04IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-04	SD-MC-04-TR
VOCs (ug/Kg)		
Methyl Acetate	NA	36
SVOCs (ug/Kg)		
Acenaphthylene	200 J	430 U
Anthracene	320 J	430 U
Benzo(a)anthracene	1500	430 U
Benzo(a)pyrene	2100	430 U
Benzo(b)fluoranthene	3000	210 J
Benzo(g,h,i)perylene	1400	430 U
Benzo(k)fluoranthene	2200	430 UJ
bis(2-Ethylhexyl)phthalate	180 J	430 U
Carbazole	220 J	430 U
Chrysene	2600	430 U
Dibenz(a,h)anthracene	350 J	430 U
Dibenzofuran	120 J	430 U
Fluoranthene	3700	230 J
Fluorene	160 J	430 U
Indeno(1,2,3-cd)pyrene	1800	430 U
Naphthalene	110 J	430 U
Phenanthrene	1600	430 U
Pyrene	3400	220 J
PCB/Pesticides (ug/Kg)		
4,4'-DDD	27	3.4 U
Metals (mg/Kg)		
Aluminum	10200	11600
Antimony	1.2 J	5.6
Arsenic	32.7	44.5
Barium	108	173
Beryllium	0.71	0.87 J
Cadmium	6.1	5.2
Calcium	NA	9640
Chromium	311 J	512
Cobalt	21	21.8 J
Copper	290	344
Iron	36400	51600
Lead	49	369
Magnesium	NA	2890
Manganese	1520	1980
Mercury	0.6	0.08 J
Nickel	25.8	25.6
Potassium	NA	724 J
Selenium	1.5 J	1 U
Silver	0.75	1 U
Sodium	NA	402
Vanadium	50.2	53.8
Zinc	590	611 J
AVS-SEM (mg/Kg)		
Cadmium	6.048	2.8112
Copper	279.4	163.9951
Lead	372.96	193.40048
Mercury	NA	0.1003 J
Nickel	39.3223 U	9.983169
SEM/AVS Ratio	3.4 J	64.4
Sulfide	138.03 J	4.173 U
Zinc	536.28	304.80978 J
TOC/TCO (mg/Kg)		
Total Organic Carbon	120000 J	290000

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TABLE 2-56
SEDIMENT DATA HITS TABLE - STATION 12IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-12
VOCs (ug/Kg)	
2-Butanone	230
Acetone	670 J
SVOCs (ug/Kg)	
2-Methylnaphthalene	81 J
Acenaphthene	81 J
Acenaphthylene	190 J
Anthracene	380
Benzo(a)anthracene	1400
Benzo(a)pyrene	1900
Benzo(b)fluoranthene	2100
Benzo(g,h,i)perylene	1100
Benzo(k)fluoranthene	2000
bis(2-Ethylhexyl)phthalate	100 J
Carbazole	170 J
Chrysene	2100
Dibenz(a,h)anthracene	320
Dibenzofuran	120 J
Fluoranthene	3100
Fluorene	190 J
Indeno(1,2,3-cd)pyrene	1400
Naphthalene	160 J
Phenanthrene	1500
Pyrene	2900
PCB/Pesticides (ug/Kg)	
4,4'-DDD	8
Metals (mg/Kg)	
Aluminum	7520
Antimony	0.71 J
Arsenic	22.8
Barium	70.5
Beryllium	0.52
Cadmium	1.2
Chromium	198 J
Cobalt	9.2 J
Copper	36.3
Iron	17800
Lead	153
Manganese	1180
Mercury	0.42
Nickel	10.9
Selenium	1.2 J
Silver	0.2 J
Vanadium	23.7
Zinc	234
AVS-SEM (mg/Kg)	
Cadmium	2.576
Copper	34.925
Lead	188.552
SEM/AVS Ratio	3.8 J
Sulfide	48.15 J
Zinc	40.548
TOC/TCO (mg/Kg)	
Total Organic Carbon	130000 J

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TABLE 2-57
SEDIMENT DATA HITS TABLE - STATION HB
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-HB-00-TR
VOCs (ug/Kg)	
Methyl Acetate	58
Metals (mg/Kg)	
Aluminum	6150
Antimony	0.77 J
Arsenic	16.2
Barium	59.4
Beryllium	0.73 J
Cadmium	2.9
Calcium	9160
Chromium	18.2
Cobalt	12.2 J
Copper	37.5
Iron	23300
Lead	233
Magnesium	1910
Manganese	58.1
Nickel	27.3
Potassium	395 J
Sodium	400
Vanadium	33.2
Zinc	207 J
AVS-SEM (mg/Kg)	
Cadmium	1.6464
Copper	7.75335
Lead	138.67896
Mercury	0.02006 J
Nickel	5.863131
SEM/AVS Ratio	21.3
Zinc	135.88812 J
TOC/TCO (mg/Kg)	
Total Organic Carbon	250000

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TABLE 2-58
SEDIMENT DATA HITS TABLE - STATION SA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-SA-01-TR
VOCs (ug/Kg)	
Methyl Acetate	24
Toluene	13 J
SVOCs (ug/Kg)	
Benzo(a)anthracene	110 J
Benzo(a)pyrene	130 J
Benzo(b)fluoranthene	180 J
Chrysene	140 J
Fluoranthene	210 J
Phenanthrene	170 J
Pyrene	280
PCB/Pesticides (ug/Kg)	
4,4'-DDD	4.5
4,4'-DDE	3.9
4,4'-DDT	2.2
Metals (mg/Kg)	
Aluminum	14300
Antimony	1.1 J
Arsenic	27.2
Barium	87.5
Beryllium	1 J
Cadmium	1.5
Calcium	5500
Chromium	42.3
Cobalt	13.2 J
Copper	57.6
Iron	24200
Lead	456
Magnesium	4090
Manganese	263
Mercury	0.2 J
Nickel	23.2
Potassium	819 J
Sodium	262
Vanadium	52.7
Zinc	246 J
AVS-SEM (mg/Kg)	
Cadmium	1.0192
Copper	29.00045
Lead	264.0764
Mercury	0.06018 J
Nickel	10.188584
SEM/AVS Ratio	24.3
Sulfide	5.136 J
Zinc	128.79876 J
TOC/TCO (mg/Kg)	
Total Organic Carbon	170000

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-23-01-FW	SD-23-02-FW	SD-23-03-FW	SD-24-01-FW	SD-24-02-FW	SD-24-03-FW	SD-24-03-ME	SD-25-01-FW	SD-25-02-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	18 U	14 U	R	14 U	13 U	13 U	69 U	18 U	19 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	18 U	14 U	R	14 U	13 U	13 U	NA	18 U	19 U
Acetone	33 UJ	20 UJ	R	14 UJ	14 UJ	13 U	NA	23 J	51 J
Benzene	18 U	14 U	R	14 U	13 U	13 U	9 UJ	18 U	19 U
Carbon Disulfide	18 U	14 U	R	14 U	13 U	13 U	NA	18 U	19 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	18 U	14 U	R	14 U	13 U	13 U	NA	18 U	19 U
SVOCs (ug/Kg)									
2-Methylnaphthalene	600 U	67 J	R	460 U	360 J	420 U	23 J	600 UJ	3100 UJ
4-Methylphenol	600 U	460 U	R	460 U	2100 U	420 U	NA	600 UJ	3100 UJ
Acenaphthene	600 U	120 J	R	120 J	1400 J	420 U	50 J	600 UJ	3100 UJ
Acenaphthylene	600 U	450 J	R	56 J	800 J	420 U	44 J	600 UJ	3100 UJ
Anthracene	600 U	530	R	98 J	1900 J	48 J	250	600 UJ	3100 UJ
Benzo(a)anthracene	600 U	1800	R	440 J	5900	520	960	510 J	4900 J
Benzo(a)pyrene	600 U	1700	R	400 J	5500	350 J	790 J	410 J	5100 J
Benzo(b)fluoranthene	600 U	2300	R	740	10000	1100	880	480 J	5800 J
Benzo(g,h,i)perylene	600 U	460 U	R	460 U	920 J	210 J	550 J	190 J	2200 J
Benzo(k)fluoranthene	600 U	2100	R	690	9600	1100	400	630 J	6700 J
bis(2-Ethylhexyl)phthalate	600 U	120 J	R	400 J	2100 U	430 J	NA	600 UJ	3100 UJ
Butylbenzylphthalate	600 U	460 U	R	47 J	2100 U	87 J	NA	600 UJ	3100 UJ
Carbazole	600 U	460 U	R	460 U	990 J	48 J	NA	600 UJ	3100 UJ
Chrysene	600 U	2000	R	550	7300	520	920	500 J	5400 J
Dibenz(a,h)anthracene	600 U	460 U	R	460 U	500 J	420 U	120 J	600 UJ	1100 J
Dibenzofuran	600 U	460 U	R	460 U	1000 J	420 U	NA	600 UJ	3100 UJ
Diethylphthalate	600 U	48 J	170 J	460 U	230 J	420 U	NA	600 UJ	3100 UJ
Di-n-butylphthalate	600 U	460 U	R	460 U	2100 U	420 U	NA	180 J	3100 UJ
Di-n-octylphthalate	600 UJ	460 UJ	R	460 UJ	2100 UJ	420 U	NA	600 UJ	3100 UJ
Fluoranthene	71 J	3100	R	880	15000	840	2600	1000 J	11000 J
Fluorene	600 U	340 J	R	91 J	2800	44 J	130	600 UJ	3100 UJ
Indeno(1,2,3-cd)pyrene	600 U	460 U	R	460 U	1700 J	210 J	620 J	270 J	3700 J
Naphthalene	600 U	460 U	NA	460 U	520 J	420 U	23 J	600 UJ	3100 UJ
Phenanthrene	600 U	3000	R	460	12000	290 J	1300	450 J	3100 J
Pyrene	81 J	3600	R	680	11000	870	2400	750 UJ	8100 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	60	84 J	R	35	98	39	390	30 UJ	31 UJ
4,4'-DDE	11	17 J	R	5.8	10	17	37	30 UJ	31 UJ
4,4'-DDT	6 U	22 J	R	20	130	27 J	24 J	30 UJ	5.8 J
Aldrin	3.1 U	2.4 U	R	0.54 J	1.6 J	0.29 J	1.6 U	15 UJ	16 UJ
alpha-BHC	3.1 U	2.4 U	R	2.4 U	0.31 J	2.2 U	1.6 U	15 UJ	16 UJ
alpha-Chlordane	3.1 U	4.6 UJ	R	2.4 U	2.2 U	5.3	2 J	15 UJ	8.4 J
Aroclor 1248	60 U	46 U	R	46 U	43 U	42 U	290 J	300 UJ	310 UJ
Aroclor 1260	60 U	46 U	R	46 U	43 U	42 U	200	300 UJ	310 UJ
beta-BHC	0.75 J	2.4 U	R	0.4 J	2.2 U	2.2 U	1.6 U	15 UJ	16 UJ
Dieldrin	1.1 J	4.6 U	R	1.5 J	18	4.2 U	3.2 U	30 UJ	6.3 J
Endosulfan I	3.1 U	2.4 U	R	2.4 U	2.2 U	0.22 J	1.6 U	8.8 J	66 J
Endosulfan II	6 U	4.6 U	R	4.6 U	7.1	2.3 J	3.2 U	30 UJ	9.4 J
Endosulfan Sulfate	6 U	4.6 U	R	6.6	4.3 U	4.2 U	3.2 U	30 UJ	11 J
Endrin	6 U	1.6 J	R	4.6 U	5.1	0.3 J	3.2 U	30 UJ	31 UJ
Endrin Aldehyde	6 U	4.6 U	R	4.6 U	4.3 U	1.1 J	5.9 J	30 UJ	31 UJ
Endrin Ketone	6 U	4.6 U	R	2.7 J	4.3	4.2 U	3.2 U	30 UJ	9.1 J
gamma-BHC (Lindane)	3.1 U	2.4 U	R	2.4 U	1.9 J	2.2 U	1.6 U	15 UJ	16 UJ
gamma-Chlordane	3.1 U	0.31 J	R	2.4 U	1.5 J	4.6	4.2	15 UJ	16 UJ
Heptachlor	3.1 UJ	2.4 UJ	R	2.4 UJ	0.84 J	2.2 UJ	1.6 U	15 UJ	16 UJ
Heptachlor Epoxide	3.1 U	2.4 UJ	R	2.4 U	1.4 J	0.48 J	1.6 U	15 UJ	16 UJ

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-23-01-FW	SD-23-02-FW	SD-23-03-FW	SD-24-01-FW	SD-24-02-FW	SD-24-03-FW	SD-24-03-ME	SD-25-01-FW	SD-25-02-FW
Metals (mg/Kg)									
Aluminum	1100	5110	5860 J	2560	4020	13700	8440 J	11600	13400
Antimony	0.74 J	0.45 UJ	1.7 J	0.48 UJ	0.5 J	1.4 UJ	1.2 J	0.84 UJ	1.7
Arsenic	5.2	17.8	14.8 J	3.8	4.8	40.6	30.7	6	16.2
Barium	5.7	21.3	25.8 J	13.3	16.2	67.3	43.6	27.1	50.5
Beryllium	0.19 U	0.31	1 J	0.19 U	0.22 U	1.2	0.8 J	0.35	0.52
Cadmium	0.08699	0.1	0.9 J	0.24	0.22	0.96	2	0.07 U	0.8
Calcium	622	925	6410 J	610	1010	3030	2410	3210	4680
Chromium	29.1 J	22.4 J	13.7 J	10.3 J	16.8 J	277 J	410 J	22.8	60.6
Cobalt	0.76	3.2	1.9 J	1.9	2.6	8.2	12.1 J	7.6	9.9
Copper	1.9	9.5	9 J	19.8	11.6	84.5	130	34.9	93.7
Iron	2040	9220	3500 J	4790	6720	20900	13200 J	16400	19000 J
Lead	6.5	19.7	5.6 J	81.3	73.9	581	566 J	328 J	755 J
Magnesium	324	2230	858 J	1140	1850	4370	2880	3920	5350
Manganese	12.6 J	91.1 J	133 J	50.4 J	68.4 J	230 J	131	115	175 J
Mercury	0.07 J	0.068 J	R	0.033 J	0.021 J	0.7 J	0.71	0.2	0.55 J
Nickel	1.1	8.3	3.6 J	6	7.2	26.1	23.7 J	12.8	17.1
Potassium	126	780	173 J	424	592	822	1170 J	964	1690
Selenium	0.89 U	0.56 U	3 J	0.6 U	0.48 U	2.1	0.91 J	1.1 UJ	3.2 J
Silver	0.44 U	0.28 U	R	0.3 U	0.24 U	2.9	2.5 J	0.53 U	0.68 U
Sodium	66.5	123	264 J	102	106	382	516	91.5 U	118 U
Thallium	1 U	0.65 U	R	0.7 U	0.56 U	2 U	0.12 UJ	1.2 U	2.2
Vanadium	2.5	12.8	18 J	7.1	12.7	148	80.3	29.1	39.5
Zinc	11.5	30.6	10.4 J	47.6	47	129	251 J	62.6	307
AVS-SEM (mg/Kg)									
Acid Volatile Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.14 U	0.1 U	0.33	0.13	6	1.1	5.6 U	0.13 U	0.83
Copper	0.96 U	12.8 J	21.7 U	12.1 J	7.2 J	93.5 J	3.175 UJ	31.1 U	70.5 U
Lead	1.8 U	11.1 J	19.9 J	86.7 J	81.1 J	522 J	370.888 J	306	704
Mercury	0.004 U	0.003 U	0.01 U	0.004 U	0.003 U	0.01 U	10.03 U	0.004 U	0.01 U
Nickel	1.2 U	64.2 U	233 U	34.8 U	2.4 U	109 U	22.3022 J	94 U	147 U
SEM/AVS	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	0	1.3	10	0.63	0.24	18	0.57	2.5	9.9
Simultaneously Extracted Metal	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	29.532	140.598	9.63	120.696	879.54	28.89	327.42	22.47	41.73
Zinc	4.3 U	17.5 U	43.8 U	38.4 J	38.2 J	147 J	243.171 J	16	137
TOC/TCO (mg/Kg)									
Total Combustible Organics	24300	4800	427000	2810	17900	183000	153000 J	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	52600	71600

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-25-02-ME	SD-25-03-FW	SD-26-01-FW	SD-26-02-FW	SD-26-03-FW	SD-27-01-FW	SD-27-02-FW	SD-27-03-FW	SD-MC-01
VOCs (ug/Kg)									
1,1,1-Trichloroethane	36 UJ	13 U	17 U	13 U	18 U	14 U	13 U	13 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	13 U	17 U	17.5 J	18 U	14 U	13 U	13 U	10 U
Acetone	NA	13 U	45 J	130 J	67 J	44 J	13 U	57 J	120 J
Benzene	4 J	13 U	17 U	13 U	18 U	14 U	13 U	13 U	10 U
Carbon Disulfide	NA	13 U	17 U	3 J	18 U	14 U	13 U	3 J	10 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	13 U	17 U	13 U	18 U	14 U	13 U	13 U	10 U
SVOCs (ug/Kg)									
2-Methylnaphthalene	22 J	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	300 U
4-Methylphenol	NA	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	190 J
Acenaphthene	69 J	420 UJ	560 UJ	440 UJ	590 UJ	290 J	420 UJ	430 UJ	300 U
Acenaphthylene	22 J	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	350 J	430 UJ	150 J
Anthracene	330	220 J	560 UJ	440 UJ	590 UJ	990 J	300 J	430 UJ	150 J
Benzo(a)anthracene	1300	990 J	560 UJ	440 UJ	590 UJ	2400 J	1500 J	520 J	640
Benzo(a)pyrene	1300	710 J	560 UJ	440 UJ	590 UJ	930 J	830 J	310 J	810
Benzo(b)fluoranthene	1500 J	920 J	190 J	150 J	180 J	1500 J	950 J	370 J	920
Benzo(g,h,i)perylene	650	210 J	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	500
Benzo(k)fluoranthene	740 J	750 J	560 UJ	440 UJ	590 UJ	1500 J	1400 J	540 J	840
bis(2-Ethylhexyl)phthalate	NA	420 UJ	620 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	94 J
Butylbenzylphthalate	NA	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	300 U
Carbazole	NA	200 J	560 UJ	440 UJ	590 UJ	520 J	130 J	430 UJ	300 U
Chrysene	1400	800 J	560 UJ	440 UJ	590 UJ	2000 J	1400 J	510 J	1100
Dibenz(a,h)anthracene	220	130 J	560 UJ	440 UJ	590 UJ	210 J	210 J	430 UJ	110 J
Dibenzofuran	NA	420 UJ	560 UJ	440 UJ	590 UJ	210 J	420 UJ	430 UJ	300 U
Diethylphthalate	NA	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	300 U
Di-n-butylphthalate	NA	150 J	180 J	170 J	240 J	470 UJ	160 J	430 UJ	300 U
Di-n-octylphthalate	NA	420 UJ	560 UJ	220 J	590 UJ	470 UJ	420 UJ	430 UJ	300 U
Fluoranthene	2500	1900 J	250 J	190 J	210 J	5500 J	3400 J	1300 J	1500
Fluorene	120	420 UJ	560 UJ	440 UJ	590 UJ	620 J	180 J	430 UJ	300 U
Indeno(1,2,3-cd)pyrene	670	410 J	560 UJ	440 UJ	590 UJ	450 J	500 J	160 J	530
Naphthalene	32 J	420 UJ	560 UJ	440 UJ	590 UJ	470 UJ	420 UJ	430 UJ	300 U
Phenanthrene	1600	1100 J	560 UJ	440 UJ	590 UJ	4500 J	1500 J	730 J	850
Pyrene	2300	1300 J	560 UJ	440 UJ	590 UJ	3400 J	2400 J	890 UJ	1700
PCB/Pesticides (ug/Kg)									
4,4'-DDD	11 J	21 UJ	59 J	16.5 J	17 J	5.7 J	21 UJ	6.2 J	200 J
4,4'-DDE	4.4 J	21 UJ	51 J	12.75 J	9.5 J	5.5 J	3.5 J	4.6 J	470 J
4,4'-DDT	2.1 J	21 UJ	30 J	17.85 J	29 UJ	15 J	14 J	5.6 J	180 J
Aldrin	0.16 U	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
alpha-BHC	0.16 U	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
alpha-Chlordane	1.3 J	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	23 J
Aroclor 1248	56 J	210 UJ	280 UJ	220 UJ	290 UJ	240 UJ	210 UJ	220 UJ	3 U
Aroclor 1260	47	210 UJ	280 UJ	220 UJ	290 UJ	240 UJ	210 UJ	220 UJ	3 U
beta-BHC	0.16 U	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
Dieldrin	0.32 U	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	4.7 J	2.2 J	0.76 U
Endosulfan I	0.16 U	7.2 J	14 UJ	11 UJ	6.9 J	7.2 J	35 J	8.2 J	0.76 U
Endosulfan II	0.33 J	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	5.3 J	22 UJ	0.76 U
Endosulfan Sulfate	0.32 U	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	9.1 J	22 UJ	0.76 U
Endrin	0.98 J	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	21 UJ	22 UJ	0.76 U
Endrin Aldehyde	4.4 J	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	21 UJ	22 UJ	NA
Endrin Ketone	0.32 U	21 UJ	28 UJ	22 UJ	29 UJ	24 UJ	6.1 J	22 UJ	0.76 U
gamma-BHC (Lindane)	0.16 U	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
gamma-Chlordane	1.3 J	11 UJ	14 UJ	1 J	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
Heptachlor	0.16 U	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U
Heptachlor Epoxide	0.36 J	11 UJ	14 UJ	11 UJ	15 UJ	12 UJ	11 UJ	11 UJ	0.76 U

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-25-02-ME	SD-25-03-FW	SD-26-01-FW	SD-26-02-FW	SD-26-03-FW	SD-27-01-FW	SD-27-02-FW	SD-27-03-FW	SD-MC-01
Metals (mg/Kg)									
Aluminum	7190	8360	13500	8345	8380	3690	4300	5050	4740
Antimony	0.64 J	0.84	0.79 UJ	0.81 J	0.7 J	0.64 UJ	0.43 UJ	0.56 J	0.81 J
Arsenic	5.4	2.5	9.4	4.75	5	6.8	5.1	4.1	12.2
Barium	48.5	18	73.1	44.4	35.7	30.9	16.6	21.8	59
Beryllium	0.37	0.23	0.51	.255	0.33	0.21	0.2	0.15	0.39 J
Cadmium	0.78 J	0.048 U	0.23 U	0.04 U	0.082 UJ	0.4	0.053 UJ	0.16 U	0.5
Calcium	2150	1180	1860	1205	1300	1310	1020	1160	NA
Chromium	26.1	13.4	32.6	20.8	8.9	9	13.4	15.1	12.2 J
Cobalt	8.1	6.1	8	5.95	3.7	5.8	3.5	4.9	6.4
Copper	52.7	18.4	42.9	16.55	10	8.1	7.1	6.8	31.6
Iron	14700	11200 J	17100	12500	8810	7640	7990	7710	11700
Lead	210	55 J	103 J	25.3 J	42.5 J	17.9 J	28 J	21 J	188
Magnesium	3490	3000	5100	4130	1430	1500	2090	2390	NA
Manganese	190	87.1 J	315	224	134	297	247	183	396
Mercury	0.1	0.081 J	0.018 UJ	0.014 UJ	0.08 U	0.016 U	0.0095 U	0.011 U	0.31
Nickel	14.6	8.7	18.9	12.7	5.9	6.6	8.8	10.3	9.2
Potassium	1210	804	2410	2310	249	516	711	636	NA
Selenium	0.48 UJ	0.59 U	0.99 UJ	0.59 UJ	0.8 UJ	0.8 UJ	0.53 UJ	0.57 UJ	0.94 J
Silver	0.2 J	0.24 U	0.49 U	0.3 U	0.4 U	0.4 U	0.27 U	0.29 U	0.085 J
Sodium	187 U	41.5 U	85.5 U	51.4 U	69.6 U	69.3 U	46.2 U	49.5 U	NA
Thallium	0.14 U	1	1.2 U	0.89 UJ	0.93999 U	0.93 U	0.62 U	0.67 U	0.36 U
Vanadium	29.7 J	20.4	37.6	22.9	18.8	9.3	11.3	10.2	20
Zinc	178	35	82.8	44.1	44.9	59.8	33	112	131
AVS-SEM (mg/Kg)									
Acid Volatile Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5.6 U	0.1 U	0.2	0.11	0.22	0.39	0.09 U	0.17	1.008
Copper	6.985	57.5 U	28.7 U	28.4 U	16.6 U	17.2 U	40.2 U	4.8 U	12.065
Lead	186.48	37.5	81	31.05	65.4	15.7	17.5	17.7	132.608
Mercury	R	0.03	0.005 U	0.004	0.005 U	0.004 U	0.003 U	0.004 U	NA
Nickel	2.9345 J	151 U	9.8 U	92.8 U	25.6 U	50.9 U	88.7 U	3.4 U	16.4332 U
SEM/AVS	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	1.43	6.2	0.23	.945	0.47	0.86	15	0.68	0.35 J
Simultaneously Extracted Metal	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	65.163	9.63	436.56	256.8	205.44	446.19	19.26	526.44	237.54 J
Zinc	121.256 J	11.2	63.3	36.75	50	59.3	17.9	73.8	117.72
TOC/TCO (mg/Kg)									
Total Combustible Organics	59200 J	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	12000	36800	12050	47200	13400	7650	10000	160000 J

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-01-TR	SD-MC-02	SD-MC-03	SD-MC-03-TR	SD-MC-04	SD-MC-04-TR	SD-MC-12	SD-HB-00-TR	SD-SA-01-TR
VOCs (ug/Kg)									
1,1,1-Trichloroethane	55 U	25 U	7 UJ	100 J	13 U	32 U	17 U	30 U	16 UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	55 U	NA	NA	52 J	NA	32 UJ	NA	30 U	16 UJ
2-Butanone	R	680	60 J	R	13 U	32 U	230	30 U	16 UJ
Acetone	220 UJ	2200 J	210 J	400 J	34 UJ	180 U	670 J	120 U	180 UJ
Benzene	R	25 U	7 UJ	R	13 U	32 U	17 U	30 U	16 UJ
Carbon Disulfide	R	25 U	7 UJ	R	13 U	32 U	17 U	30 U	16 UJ
Methyl Acetate	210	NA	NA	350 J	NA	36	NA	58	24
Toluene	7.9 J	25 U	7 UJ	73 J	34 U	32 U	17 U	30 U	13 J
SVOCs (ug/Kg)									
2-Methylnaphthalene	380 U	1000 U	93 J	370 U	400 U	430 U	81 J	460 U	230 U
4-Methylphenol	NA	1000 U	340 U	NA	400 U	NA	320 U	NA	NA
Acenaphthene	380 U	1000 U	110 J	370 U	400 U	430 U	81 J	460 U	230 U
Acenaphthylene	380 U	1000 U	390	370 U	200 J	430 U	190 J	460 U	230 U
Anthracene	380 U	1000 U	440	370 U	320 J	430 U	380	460 U	230 U
Benzo(a)anthracene	210 J	1000 U	2100	370 U	1500	430 U	1400	460 U	110 J
Benzo(a)pyrene	250 J	1000 U	3300	370 U	2100	430 U	1900	460 U	130 J
Benzo(b)fluoranthene	310 J	1000 U	4900	180 J	3000	210 J	2100	460 U	180 J
Benzo(g,h,i)perylene	380 U	1000 U	1700	370 U	1400	430 U	1100	460 U	230 U
Benzo(k)fluoranthene	380 UJ	1000 U	3200	370 UJ	2200	430 UJ	2000	460 UJ	230 UJ
bis(2-Ethylhexyl)phthalate	380 U	1000 U	1200	370 U	180 J	430 U	100 J	460 U	230 U
Butylbenzylphthalate	380 U	1000 U	340 U	370 U	400 U	430 U	320 U	460 U	230 U
Carbazole	380 U	1000 U	370	370 U	220 J	430 U	170 J	460 U	230 U
Chrysene	250 J	1000 U	4400	370 U	2600	430 U	2100	460 U	140 J
Dibenz(a,h)anthracene	380 U	1000 U	530	370 U	350 J	430 U	320	460 U	230 U
Dibenzofuran	380 U	1000 U	120 J	370 U	120 J	430 U	120 J	460 U	230 U
Diethylphthalate	380 U	1000 U	340 U	370 U	400 U	430 U	320 U	460 U	230 U
Di-n-butylphthalate	380 U	1000 U	340 U	370 U	400 U	430 U	320 U	460 U	230 U
Di-n-octylphthalate	380 U	1000 U	340 U	370 U	400 U	430 U	320 U	460 U	230 U
Fluoranthene	400	1000 U	6400	220 J	3700	230 J	3100	460 U	210 J
Fluorene	380 U	1000 U	210 J	370 U	160 J	430 U	190 J	460 U	230 U
Indeno(1,2,3-cd)pyrene	380 U	1000 U	2400	370 U	1800	430 U	1400	460 U	230 U
Naphthalene	380 U	1000 U	160 J	370 U	110 J	430 U	160 J	460 U	230 U
Phenanthrene	220 J	1000 U	3300	370 U	1600	430 U	1500	460 U	170 J
Pyrene	440	1000 U	6100	230 J	3400	220 J	2900	460 U	280
PCB/Pesticides (ug/Kg)									
4,4'-DDD	5.7	25 J	97 J	1.1 J	27	3.4 U	8	3.6 U	4.5
4,4'-DDE	11	13	43 J	1.6 J	0.99 U	3.4 U	0.79 U	3.6 U	3.9
4,4'-DDT	3 J	2.6 U	26 J	2.9 U	0.99 U	3.4 U	0.79 U	3.6 U	2.2
Aldrin	1.6 U	2.6 U	0.85 UJ	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
alpha-BHC	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
alpha-Chlordane	1.6 U	2.6 U	69 J	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
Aroclor 1248	31 U	10.4 U	3.4 U	29 U	3.9 U	34 U	3.2 U	36 U	19 U
Aroclor 1260	31 U	10.4 U	3.4 U	29 U	3.9 U	34 U	3.2 U	36 U	19 U
beta-BHC	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
Dieldrin	3.1 U	2.6 U	0.85 U	2.9 U	0.99 U	3.4 U	0.79 U	3.6 U	1.9 U
Endosulfan I	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
Endosulfan II	3.1 U	2.6 U	0.85 U	2.9 U	0.99 U	3.4 U	0.79 U	3.6 U	1.9 U
Endosulfan Sulfate	3.1 U	2.6 U	0.85 U	2.9 U	0.99 U	3.4 U	0.79 U	3.6 U	1.9 U
Endrin	3.1 U	2.6 U	0.85 UJ	2.9 U	0.99 U	3.4 U	0.79 U	3.6 U	1.9 U
Endrin Aldehyde	3.1 U	NA	NA	2.9 U	NA	3.4 U	NA	3.6 U	1.9 U
Endrin Ketone	3.1 UJ	2.6 U	0.85 U	2.9 UJ	0.99 U	3.4 UJ	0.79 U	3.6 UJ	1.9 UJ
gamma-BHC (Lindane)	1.6 U	2.6 U	0.85 UJ	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
gamma-Chlordane	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
Heptachlor	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U
Heptachlor Epoxide	1.6 U	2.6 U	0.85 U	1.5 U	0.99 U	1.7 U	0.79 U	1.8 U	0.93 U

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TABLE 2-59
SEDIMENT DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MC-01-TR	SD-MC-02	SD-MC-03	SD-MC-03-TR	SD-MC-04	SD-MC-04-TR	SD-MC-12	SD-HB-00-TR	SD-SA-01-TR
Metals (mg/Kg)									
Aluminum	8560	8620	15200	20200	10200	11600	7520	6150	14300
Antimony	1.4 J	1.4 J	0.93 J	1.5	1.2 J	5.6	0.71 J	0.77 J	1.1 J
Arsenic	27.8	29.9	21.4	34.4	32.7	44.5	22.8	16.2	27.2
Barium	95.7	80.7	89.6	155	108	173	70.5	59.4	87.5
Beryllium	0.71 J	1.1	0.95	1.3 J	0.71	0.87 J	0.52	0.73 J	1 J
Cadmium	2.2	2.9	2.8	4.1	6.1	5.2	1.2	2.9	1.5
Calcium	10900	NA	NA	6570	NA	9640	NA	9160	5500
Chromium	28.4	155 J	46.2 J	71.1	311 J	512	198 J	18.2	42.3
Cobalt	8.3 J	12.1	13.2	19.2 J	21	21.8 J	9.2 J	12.2 J	13.2 J
Copper	70.8	65.7	75	125	290	344	36.3	37.5	57.6
Iron	19400	25500	20300	27700	36400	51600	17800	23300	24200
Lead	252	197	153	259	49	369	153	233	456
Magnesium	2570	NA	NA	5810	NA	2890	NA	1910	4090
Manganese	225	837	383	423	1520	1980	1180	58.1	263
Mercury	0.03 J	0.35	0.26	0.09 J	0.6	0.08 J	0.42	0.02 UJ	0.2 J
Nickel	16.6	19.6	24.3	32.1	25.8	25.6	10.9	27.3	23.2
Potassium	547 J	NA	NA	2330 J	NA	724 J	NA	395 J	819 J
Selenium	1 U	1.2 J	0.88 J	1 U	1.5 J	1 U	1.2 J	0.99 U	0.99 U
Silver	1 U	0.47	0.9	1 U	0.75	1 U	0.2 J	0.99 U	0.99 U
Sodium	334	NA	NA	5400	NA	402	NA	400	262
Thallium	1.1 U	0.45 U	0.55 U	1.1 U	0.62 U	1.1 U	0.49 U	1.1 U	1.1 U
Vanadium	38.2	51.5	43.5	56	50.2	53.8	23.7	33.2	52.7
Zinc	282 J	377	457	645 J	590	611 J	234	207 J	246 J
AVS-SEM (mg/Kg)									
Acid Volatile Sulfide	0.8 J	NA	NA	0.14 J	NA	0.13 U	NA	0.14 U	0.16 J
Cadmium	0.01	4.256	2.464	0.0238	6.048	0.0251	2.576	0.0147	0.0091
Copper	0.5085	8.89	44.45	1.1141	279.4	2.5826	34.925	0.1221	0.4567
Lead	0.6017	248.64	165.76	0.8143	372.96	0.9334	188.552	0.6693	1.2745
Mercury	0.0002 J	NA	NA	0.0004 J	NA	0.0005 J	NA	0.0001 J	0.0003 J
Nickel	0.1389	64.559 U	42.2568 U	0.2967	39.3223 U	0.1701	39.9092 U	0.0999	0.1736
SEM/AVS	4.3	NA	NA	59.8	NA	64.4	NA	21.3	24.3
SEM/AVS Ratio	NA	0.09 J	0.16 J	NA	3.4 J	NA	3.8 J	NA	NA
Simultaneously Extracted Metal	3.459	NA	NA	8.3679	NA	8.3724	NA	2.9839	3.8836
Sulfide	NA	3852 J	1444.5 J	NA	138.03 J	NA	48.15 J	NA	NA
Zinc	2.1997 J	568.98 J	366.24 J	6.1186 J	536.28	4.6607 J	40.548	2.0778 J	1.9694 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	270000	370000 J	110000 J	330000	120000 J	290000	130000 J	250000	170000

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TABLE 2-60
SEDIMENT DATA SUMMARY - STATION 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	26 - 30	14
1,1,1-Trichloroethane						0 / 12	11 - 228	23
1,1,2,2-Tetrachloroethane						0 / 12	11 - 76	12
1,1,2-Trichloroethane						0 / 12	11 - 76	12
1,1-Dichloroethane						0 / 12	11 - 228	23
1,1-Dichloroethene						0 / 12	11 - 228	23
1,2-Dichloroethane						0 / 12	11 - 228	23
1,2-Dichloroethene(total)						0 / 10	11 - 26	6.9
1,2-Dichloropropane						0 / 10	11 - 26	6.9
2-Butanone	12	J	20	J	SD-01-04-FW	2 / 10	11 - 26	8.9
2-Hexanone						0 / 10	11 - 26	6.9
4-Methyl-2-pentanone						0 / 10	11 - 26	6.9
Acetone						0 / 10	12 - 120	30
Benzene						0 / 12	11 - 30	8.1
Bromodichloromethane						0 / 10	11 - 26	6.9
Bromoform						0 / 10	11 - 26	6.9
Bromomethane						0 / 10	11 - 26	6.9
Carbon Disulfide						0 / 10	11 - 26	6.9
Carbon Tetrachloride						0 / 10	11 - 26	6.9
Chlorobenzene						0 / 10	11 - 26	6.9
Chloroethane						0 / 10	11 - 26	6.9
Chloroform						0 / 12	11 - 76	12
Chloromethane						0 / 10	11 - 26	6.9
cis-1,2-Dichloroethene	58	J	62	J	SD-01-06-ME	2 / 2	66 - 76	60
cis-1,3-Dichloropropene						0 / 10	11 - 26	6.9
Dibromochloromethane						0 / 10	11 - 26	6.9
Ethylbenzene						0 / 12	11 - 30	8.1
Methylene chloride						0 / 12	11 - 228	33
Naphthalene						0 / 2	197 - 228	106
Styrene						0 / 10	11 - 26	6.9
Tetrachloroethene						0 / 12	11 - 228	23
Toluene						0 / 10	11 - 26	6.9
trans-1,2-Dichloroethene						0 / 2	197 - 228	106
trans-1,3-Dichloropropene						0 / 10	11 - 26	6.9
Trichloroethene	37	J	37	J	SD-01-06-ME	1 / 12	11 - 76	12
Vinyl chloride						0 / 12	11 - 228	23
Xylene, m/p-						0 / 2	66 - 76	36
Xylene, o-						0 / 2	66 - 76	36
Xylenes (total)						0 / 10	11 - 26	6.9
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 10	370 - 870	230
1,2-Dichlorobenzene						0 / 10	370 - 870	230
1,3-Dichlorobenzene						0 / 10	370 - 870	230
1,4-Dichlorobenzene						0 / 10	370 - 870	230
2,2'-oxybis(1-Chloropropane)						0 / 10	370 - 870	230
2,4,5-Trichlorophenol						0 / 10	930 - 2200	582
2,4,6-Trichlorophenol						0 / 10	370 - 870	230
2,4-Dichlorophenol						0 / 10	370 - 870	230
2,4-Dimethylphenol						0 / 10	370 - 870	230
2,4-Dinitrophenol						0 / 10	930 - 2200	582
2,4-Dinitrotoluene						0 / 10	370 - 870	230
2,6-Dinitrotoluene						0 / 10	370 - 870	230
2-Chloronaphthalene						0 / 10	370 - 870	230
2-Chlorophenol						0 / 10	370 - 870	230
2-Methylnaphthalene	20	J	20	J	SD-01-06-ME	2 / 12	67 - 870	195
2-Methylphenol						0 / 10	370 - 870	230
2-Nitroaniline						0 / 10	930 - 2200	582
2-Nitrophenol						0 / 10	370 - 870	230
3,3'-Dichlorobenzidine						0 / 10	370 - 870	230
3-Nitroaniline						0 / 10	930 - 2200	582

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TABLE 2-60
SEDIMENT DATA SUMMARY - STATION 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 10	930 - 2200	582
4-Bromophenyl-phenylether						0 / 10	370 - 870	230
4-Chloro-3-methylphenol						0 / 10	370 - 870	230
4-Chloroaniline						0 / 10	370 - 870	230
4-Chlorophenyl-phenyl ether						0 / 10	370 - 870	230
4-Methylphenol						0 / 10	370 - 870	230
4-Nitroaniline						0 / 10	930 - 2200	582
4-Nitrophenol						0 / 10	930 - 2200	582
Acenaphthene	32	J	65	J	SD-01-03-FW	3 / 12	67 - 870	186
Acenaphthylene	33	J	37	J	SD-01-07-ME	2 / 12	67 - 870	197
Anthracene	27	J	150	J	SD-01-06-FW	6 / 12	67 - 480	151
Benzo(a)anthracene	90	J	1100		SD-01-07-ME	8 / 12	67 - 420	358
Benzo(a)pyrene	89	J	930		SD-01-06-ME	8 / 12	67 - 420	358
Benzo(b)fluoranthene	90	J	1600		SD-01-07-ME	8 / 12	67 - 420	479
Benzo(g,h,i)perylene	120	J	1000	J	SD-01-06-FW	6 / 12	67 - 420	313
Benzo(k)fluoranthene	94	J	840	J	SD-01-06-FW	8 / 12	67 - 420	326
bis(2-Chloroethoxy)methane						0 / 10	370 - 870	230
bis(2-Chloroethyl)ether						0 / 10	370 - 870	230
bis(2-Ethylhexyl)phthalate						0 / 10	370 - 870	230
Butylbenzylphthalate						0 / 10	370 - 870	230
Carbazole	74	J	74	J	SD-01-03-FW	1 / 10	370 - 870	218
Chrysene	130	J	1100	J	SD-01-06-FW	8 / 12	67 - 420	402
Di-n-butylphthalate						0 / 10	370 - 870	230
Di-n-octylphthalate						0 / 10	370 - 870	230
Dibenz(a,h)anthracene	110		120		SD-01-06-ME	2 / 12	67 - 870	210
Dibenzofuran						0 / 10	370 - 870	230
Diethylphthalate						0 / 10	370 - 870	230
Dimethylphthalate						0 / 10	370 - 870	230
Fluoranthene	110	J	2200		SD-01-07-ME	9 / 12	67 - 420	684
Fluorene	54	J	89		SD-01-06-ME	3 / 12	67 - 870	195
Hexachlorobenzene						0 / 10	370 - 870	230
Hexachlorobutadiene sv						0 / 10	370 - 870	230
Hexachlorocyclopentadiene						0 / 10	370 - 870	230
Hexachloroethane						0 / 10	370 - 870	230
Indeno(1,2,3-cd)pyrene	120	J	880	J	SD-01-06-FW	6 / 12	67 - 420	318
Isophorone						0 / 10	370 - 870	230
N-Nitroso-di-n-propylamine						0 / 10	370 - 870	230
N-nitrosodiphenylamine						0 / 10	370 - 870	230
Naphthalene	23	J	24	J	SD-01-06-ME	2 / 12	67 - 870	195
Nitrobenzene						0 / 10	370 - 870	230
Pentachlorophenol						0 / 10	930 - 2200	582
Phenanthrene	74	J	900		SD-01-07-ME	9 / 12	67 - 420	356
Phenol						0 / 10	370 - 870	230
Pyrene	130	J	1900		SD-01-06-ME	9 / 12	67 - 420	655
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.31	0.16
4,4'-DDD	16	J	18	J	SD-01-07-ME	2 / 12	0.31 - 43	6.8
4,4'-DDE	7.9	J	28		SD-01-07-ME	3 / 12	0.31 - 43	8.8
4,4'-DDT	2.5	J	3.2	J	SD-01-07-ME	2 / 12	0.31 - 43	4.5
Aldrin	0.21	J	0.21	J	SD-01-07-ME	1 / 12	0.16 - 22	2.1
alpha-BHC	0.17	J	0.17	J	SD-01-07-ME	1 / 12	0.16 - 22	2.1
alpha-Chlordane	9.3	J	10	J	SD-01-07-ME	2 / 12	0.16 - 22	3.7
Aroclor 1016						0 / 12	3.1 - 430	40
Aroclor 1221						0 / 12	6.2 - 880	81
Aroclor 1232						0 / 12	3.1 - 430	40
Aroclor 1242						0 / 12	3.1 - 430	40
Aroclor 1248	46	J	70	J	SD-01-07-ME	2 / 12	3.1 - 430	49
Aroclor 1254						0 / 12	3.1 - 430	40
Aroclor 1260	47		69	J	SD-01-07-ME	2 / 12	3.1 - 430	49
beta-BHC						0 / 12	0.16 - 22	2.1

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TABLE 2-60
SEDIMENT DATA SUMMARY - STATION 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	0.19	J	0.19	J	SD-01-06-ME	1 / 12	0.16 - 22	2.1
Dieldrin	0.5	J	0.61	J	SD-01-07-ME	2 / 12	0.31 - 43	4.1
Endosulfan I						0 / 12	0.16 - 22	2.1
Endosulfan II	0.41		0.66		SD-01-07-ME	2 / 12	0.31 - 43	4.1
Endosulfan Sulfate	0.67	J	0.78	J	SD-01-07-ME	2 / 12	0.31 - 43	4.1
Endrin	1.2	J	1.8	J	SD-01-07-ME	2 / 12	0.31 - 43	4.2
Endrin Aldehyde	3.2	J	3.4	J	SD-01-06-ME	2 / 12	0.31 - 43	4.5
Endrin Ketone						0 / 12	0.31 - 43	4.0
gamma-BHC (Lindane)						0 / 12	0.16 - 22	2.1
gamma-Chlordane	6.4	J	6.8	J	SD-01-07-ME	2 / 12	0.16 - 22	3.1
Heptachlor						0 / 12	0.16 - 22	2.1
Heptachlor Epoxide						0 / 12	0.16 - 22	2.1
Methoxychlor						0 / 12	1.6 - 220	21
Toxaphene						0 / 12	16 - 2200	206
Metals - mg/Kg								
Aluminum	2970		19000		SD-01-06-FW	12 / 12	3.5	6722
Antimony	0.53	J	2.2	J	SD-01-06-FW	6 / 12	0.27 - 0.63	0.77
Arsenic	2.4		171		SD-01-06-FW	12 / 12	0.22	39
Barium	8.1		95.1		SD-01-07-ME	12 / 12	0.018	30
Beryllium	0.87	J	1		SD-01-06-FW	3 / 12	0.028 - 0.3	0.28
Cadmium	0.045		37.7		SD-01-06-FW	10 / 12	0.041 - 0.35	5.0
Calcium	493		7510		SD-01-07-ME	12 / 12	1.6	2129
Chromium	6.9		192	J	SD-01-07-ME	12 / 12	0.055	44
Cobalt	2.6		38.9		SD-01-06-FW	12 / 12	0.38	12
Copper	5.8		1250		SD-01-06-FW	12 / 12	0.083	195
Cyanide						0 / 10	0.41 - 1.4	0.31
Iron	3830		32500	J	SD-01-07-ME	12 / 12	0.57	12112
Lead	7.9	J	477	J	SD-01-07-ME	12 / 12	0.27	129
Magnesium	913		3520		SD-01-06-FW	12 / 12	3.5	2068
Manganese	48.5		595		SD-01-07-ME	12 / 12	0.018	180
Mercury	0.2		1.1		SD-01-07-ME	4 / 12	0.005 - 0.095	0.25
Nickel	4.8		41.3	J	SD-01-07-ME	12 / 12	0.15	14
Potassium	224	J	1190	J	SD-01-06-ME	12 / 12	2.7	668
Selenium	1.4	J	5.1	J	SD-01-06-ME	2 / 12	0.053 - 2.2	0.86
Silver	0.51		0.75	J	SD-01-06-ME	3 / 12	0.01 - 0.7	0.30
Sodium	165		1080		SD-01-06-FW	4 / 12	0.22 - 68.2	221
Thallium	0.54		2.9		SD-01-06-FW	3 / 12	0.038 - 0.92	0.63
Vanadium	6.5		56.4		SD-01-06-ME	12 / 12	0.073	20
Zinc	46.1		7670		SD-01-10-FW	12 / 12	0.17	1806
AVS-SEM - mg/Kg								
Arsenic	4.5	J	8.2	J	SD-01-07-ME	2 / 2	N/A	6.4
Cadmium	0.74		34		SD-01-06-FW	6 / 12	0.14 - 8.96	5.1
Copper	5.1	J	635	J	SD-01-06-FW	2 / 12	2.7 - 93.9	65
Lead	6.9		441	J	SD-01-07-ME	12 / 12	N/A	120
Mercury	0.010		0.14		SD-01-04-FW	4 / 12	0.003 - 10.03	0.85
Nickel	13	J	50	J	SD-01-06-ME	2 / 12	1.5 - 88.4	15
SEM/AVS Ratio	0.12		3.8		SD-01-08-FW	12 / 12	N/A	1.4
Sulfide	9.3	J	7094	J	SD-01-06-FW	12 / 12	N/A	1245
Zinc	36		6430		SD-01-06-FW	12 / 12	N/A	1126
Total Combustible Organics (mg/Kg)	152000	J	230000	J	SD-01-06-ME	2 / 2	2000	191000
Total Organic Carbon (mg/Kg)	830		65700		SD-01-06-FW	7 / 10	114 - 116	10831

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-61
SEDIMENT DATA SUMMARY - STATION 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	10 - 21	7.8
1,1,1-Trichloroethane						0 / 5	12 - 159	27
1,1,2,2-Tetrachloroethane						0 / 5	12 - 53	12
1,1,2-Trichloroethane						0 / 5	12 - 53	12
1,1-Dichloroethane						0 / 5	12 - 159	27
1,1-Dichloroethene						0 / 5	12 - 159	27
1,2-Dichloroethane						0 / 5	12 - 159	27
1,2-Dichloroethene(total)						0 / 3	12	6.0
1,2-Dichloropropane						0 / 3	12	6.0
2-Butanone	9	J	9	J	SD-02-01-FW	1 / 3	12	7.0
2-Hexanone						0 / 3	12	6.0
4-Methyl-2-pentanone						0 / 3	12	6.0
Acetone						0 / 3	16 - 52	17
Benzene						0 / 5	10 - 21	6.7
Bromodichloromethane						0 / 3	12	6.0
Bromoform						0 / 3	12	6.0
Bromomethane						0 / 3	12	6.0
Carbon Disulfide						0 / 3	12	6.0
Carbon Tetrachloride						0 / 3	12	6.0
Chlorobenzene						0 / 3	12	6.0
Chloroethane						0 / 3	12	6.0
Chloroform						0 / 5	12 - 53	12
Chloromethane						0 / 3	12	6.0
cis-1,2-Dichloroethene						0 / 2	26 - 53	20
cis-1,3-Dichloropropene						0 / 3	12	6.0
Dibromochloromethane						0 / 3	12	6.0
Ethylbenzene						0 / 5	10 - 21	6.7
Methylene chloride						0 / 5	12 - 159	30
Naphthalene						0 / 2	77 - 159	59
Styrene						0 / 3	12	6.0
Tetrachloroethene						0 / 5	12 - 159	27
Toluene						0 / 3	12	6.0
trans-1,2-Dichloroethene						0 / 2	77 - 159	59
trans-1,3-Dichloropropene						0 / 3	12	6.0
Trichloroethene						0 / 5	12 - 53	12
Vinyl chloride						0 / 5	12 - 159	27
Xylene, m/p-						0 / 2	26 - 53	20
Xylene, o-						0 / 2	26 - 53	20
Xylenes (total)						0 / 3	12	6.0
Xylenes (total)						0 / 14	13 - 19	7.5
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	410	205
1,2-Dichlorobenzene						0 / 3	410	205
1,3-Dichlorobenzene						0 / 3	410	205
1,4-Dichlorobenzene						0 / 3	410	205
2,2'-oxybis(1-Chloropropane)						0 / 3	410	205
2,4,5-Trichlorophenol						0 / 3	1000	500
2,4,6-Trichlorophenol						0 / 3	410	205
2,4-Dichlorophenol						0 / 3	410	205
2,4-Dimethylphenol						0 / 3	410	205
2,4-Dinitrophenol						0 / 3	1000	500
2,4-Dinitrotoluene						0 / 3	410	205
2,6-Dinitrotoluene						0 / 3	410	205
2-Chloronaphthalene						0 / 3	410	205
2-Chlorophenol						0 / 3	410	205
2-Methylnaphthalene	12	J	20	J	SD-02-02-ME	2 / 5	1 - 410	129
2-Methylphenol						0 / 3	410	205
2-Nitroaniline						0 / 3	1000	500
2-Nitrophenol						0 / 3	410	205
3,3'-Dichlorobenzidine						0 / 3	410	205
3-Nitroaniline						0 / 3	1000	500
4,6-Dinitro-2-methylphenol						0 / 3	1000	500
4-Bromophenyl-phenylether						0 / 3	410	205

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TABLE 2-61
SEDIMENT DATA SUMMARY - STATION 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Chloro-3-methylphenol						0 / 3	410	205
4-Chloroaniline						0 / 3	410	205
4-Chlorophenyl-phenyl ether						0 / 3	410	205
4-Methylphenol						0 / 3	410	205
4-Nitroaniline						0 / 3	1000	500
4-Nitrophenol						0 / 3	1000	500
Acenaphthene	11	J	30	J	SD-02-02-ME	2 / 5	1 - 410	131
Acenaphthylene	22	J	57	J	SD-02-02-ME	2 / 5	1 - 410	139
Anthracene	62	J	140		SD-02-02-ME	3 / 5	67 - 410	137
Benzo(a)anthracene	168	J	1500		SD-02-02-ME	3 / 5	67 - 410	534
Benzo(a)pyrene	190	J	1400		SD-02-02-ME	3 / 5	67 - 410	524
Benzo(b)fluoranthene	180	J	1700		SD-02-02-ME	3 / 5	67 - 410	602
Benzo(g,h,i)perylene	155	J	640		SD-02-02-ME	3 / 5	67 - 410	307
Benzo(k)fluoranthene	160	J	710		SD-02-02-ME	3 / 5	67 - 410	324
bis(2-Chloroethoxy)methane						0 / 3	410	205
bis(2-Chloroethyl)ether						0 / 3	410	205
bis(2-Ethylhexyl)phthalate						0 / 3	410	205
Butylbenzylphthalate						0 / 3	410	205
Carbazole						0 / 3	410	205
Chrysene	275	J	1400		SD-02-02-ME	3 / 5	67 - 410	549
Di-n-butylphthalate						0 / 3	410	205
Di-n-octylphthalate						0 / 3	410	205
Dibenz(a,h)anthracene	69	J	150		SD-02-02-ME	2 / 5	2 - 410	167
Dibenzofuran						0 / 3	410	205
Diethylphthalate						0 / 3	410	205
Dimethylphthalate						0 / 3	410	205
Fluoranthene	315	J	3000		SD-02-02-ME	3 / 5	67 - 410	985
Fluorene	44	J	97		SD-02-02-ME	2 / 5	67 - 410	151
Hexachlorobenzene						0 / 3	410	205
Hexachlorobutadiene sv						0 / 3	410	205
Hexachlorocyclopentadiene						0 / 3	410	205
Hexachloroethane						0 / 3	410	205
Indeno(1,2,3-cd)pyrene	130.5	J	860		SD-02-02-ME	3 / 5	67 - 410	364
Isophorone						0 / 3	410	205
N-Nitroso-di-n-propylamine						0 / 3	410	205
N-nitrosodiphenylamine						0 / 3	410	205
Naphthalene	13	J	24	J	SD-02-02-ME	2 / 5	67 - 410	130
Nitrobenzene						0 / 3	410	205
Pentachlorophenol						0 / 3	1000	500
Phenanthrene	210	J	970		SD-02-02-ME	3 / 5	67 - 410	396
Phenol						0 / 3	410	205
Pyrene	420	J	2500		SD-02-02-ME	3 / 5	67 - 410	886
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.32 - 0.33	0.16
4,4'-DDD	3.875	J	25	J	SD-02-02-ME	3 / 5	0.32 - 4.1	11
4,4'-DDE	10.35	J	30		SD-02-02-ME	3 / 5	0.32 - 4.1	14
4,4'-DDT	1.8	J	2.4	J	SD-02-02-ME	2 / 5	0.32 - 4.1	2.1
Aldrin						0 / 5	0.16 - 2.1	0.66
alpha-BHC						0 / 5	0.16 - 2.1	0.66
alpha-Chlordane	11	J	16		SD-02-02-ME	2 / 5	0.16 - 2.1	6.0
Aroclor 1016						0 / 5	3.2 - 41	13
Aroclor 1221						0 / 5	6.4 - 84	26
Aroclor 1232						0 / 5	3.2 - 41	13
Aroclor 1242						0 / 5	3.2 - 41	13
Aroclor 1248	160	J	180	J	SD-02-02-ME	2 / 5	3.2 - 41	80
Aroclor 1254						0 / 5	3.2 - 41	13
Aroclor 1260	140		170		SD-02-02-ME	2 / 5	3.2 - 41	74
beta-BHC						0 / 5	0.16 - 2.1	0.66

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TABLE 2-61
SEDIMENT DATA SUMMARY - STATION 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	1.3	J	1.3	J	SD-02-01-ME	1 / 5	0.16 - 2.1	0.91
Dieldrin	0.45	J	0.47		SD-02-02-ME	2 / 5	0.32 - 4.1	1.4
Endosulfan I						0 / 5	0.16 - 2.1	0.66
Endosulfan II	0.21	J	0.28		SD-02-02-ME	2 / 5	0.32 - 4.1	1.3
Endosulfan Sulfate	0.47	J	0.47	J	SD-02-01-ME	1 / 5	0.32 - 4.1	1.4
Endrin	1.3	J	1.9		SD-02-02-ME	2 / 5	0.32 - 4.1	1.9
Endrin Aldehyde	1.6	J	1.9	J	SD-02-02-ME	2 / 5	0.32 - 4.1	1.9
Endrin Ketone						0 / 5	0.32 - 4.1	1.3
gamma-BHC (Lindane)						0 / 5	0.16 - 2.1	0.66
gamma-Chlordane	8	J	11	J	SD-02-02-ME	2 / 5	0.16 - 2.1	4.4
Heptachlor						0 / 5	0.16 - 2.1	0.66
Heptachlor Epoxide						0 / 5	0.16 - 2.1	0.66
Methoxychlor						0 / 5	1.6 - 21	6.6
Toxaphene						0 / 5	16 - 210	66
Metals - mg/Kg								
Aluminum	3220		11200	J	SD-02-02-ME	5 / 5	3.5	6382
Antimony	0.325	J	2.1	J	SD-02-02-ME	4 / 5	0.067 - 0.42	1.0
Arsenic	3.6		105		SD-02-02-ME	5 / 5	0.22	36
Barium	14		81.2		SD-02-02-ME	5 / 5	0.018	41
Beryllium	0.47	J	0.91	J	SD-02-02-ME	2 / 5	0.027 - 0.14	0.31
Cadmium	0.23		16.1		SD-02-02-ME	4 / 5	0.035 - 0.35	4.1
Calcium	739		4600		SD-02-02-ME	5 / 5	1.6	2137
Chromium	7.5		190	J	SD-02-02-ME	5 / 5	0.055	68
Cobalt	4		33	J	SD-02-02-ME	5 / 5	0.37 - 0.38	13
Copper	10.3		381		SD-02-02-ME	5 / 5	0.082	112
Cyanide						0 / 3	0.59 - 0.68	0.31
Iron	5200		26000	J	SD-02-02-ME	5 / 5	0.57	13073
Lead	5.7	J	449	J	SD-02-02-ME	5 / 5	0.26 - 0.27	212
Magnesium	1560		2650		SD-02-02-FW	5 / 5	3.5	2263
Manganese	70.4		390		SD-02-02-ME	5 / 5	0.018	175
Mercury	0.063		1.1		SD-02-02-ME	3 / 5	0.005 - 0.031	0.31
Nickel	6.2		31	J	SD-02-02-ME	5 / 5	0.15	15
Potassium	390	J	862	J	SD-02-02-FW	5 / 5	2.7	645
Selenium	1.6	J	2	J	SD-02-02-ME	2 / 5	0.053 - 0.67	0.88
Silver	0.4	J	0.91	J	SD-02-02-ME	2 / 5	0.01 - 0.33	0.34
Sodium	197		382		SD-02-02-ME	2 / 5	0.22 - 57.7	130
Thallium	0.469995	J	0.82		SD-02-02-FW	2 / 5	0.038 - 0.78	0.44
Vanadium	9.7		46.1		SD-02-02-ME	5 / 5	0.073	24
Zinc	34.8		5170	J	SD-02-02-ME	5 / 5	0.16	1307
AVS-SEM - mg/Kg								
Arsenic	3.7	J	3.7	J	SD-02-02-ME	1 / 2	3.745	2.8
Cadmium	0.89		17	J	SD-02-02-ME	2 / 5	0.1 - 5.6	4.2
Copper						0 / 5	3.175 - 85	12
Lead	7.4		390	J	SD-02-02-ME	5 / 5	N/A	164
Mercury	0.020		0.020		SD-02-03-FW	1 / 5	0.003 - 10.03	2.0
Nickel	8.2	J	29	J	SD-02-02-ME	2 / 5	2.3 - 38.4	14
SEM/AVS Ratio	0.091		17		SD-02-01-FW	5 / 5	N/A	3.7
Sulfide	20	J	4141		SD-02-02-ME	5 / 5	N/A	1191
Zinc	26		2419	J	SD-02-02-ME	5 / 5	N/A	716
Total Combustible Organics (mg/Kg)	125000	J	160000	J	SD-02-02-ME	2 / 2	2000	142500
Total Organic Carbon (mg/Kg)	2690		9420		SD-02-02-FW	3 / 3	N/A	6212

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-62
SEDIMENT DATA SUMMARY - STATION 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	18	9.0
1,1,1-Trichloroethane						0 / 4	12 - 132	23
1,1,2,2-Tetrachloroethane						0 / 4	12 - 44	12
1,1,2-Trichloroethane						0 / 4	12 - 44	12
1,1-Dichloroethane						0 / 4	12 - 132	23
1,1-Dichloroethene						0 / 4	12 - 132	23
1,2-Dichloroethane						0 / 4	12 - 132	23
1,2-Dichloroethene(total)						0 / 3	12 - 24	8.0
1,2-Dichloropropane						0 / 3	12 - 24	8.0
2-Butanone	70		70		SD-03-02-FW	1 / 3	12	27
2-Hexanone						0 / 3	12 - 24	8.0
4-Methyl-2-pentanone						0 / 3	12 - 24	8.0
Acetone						0 / 3	12 - 310	59
Benzene	9	J	9	J	SD-03-02-ME	1 / 4	12 - 24	8.3
Bromodichloromethane						0 / 3	12 - 24	8.0
Bromoform						0 / 3	12 - 24	8.0
Bromomethane						0 / 3	12 - 24	8.0
Carbon Disulfide						0 / 3	12 - 24	8.0
Carbon Tetrachloride						0 / 3	12 - 24	8.0
Chlorobenzene						0 / 3	12 - 24	8.0
Chloroethane						0 / 3	12 - 24	8.0
Chloroform						0 / 4	12 - 44	12
Chloromethane						0 / 3	12 - 24	8.0
cis-1,2-Dichloroethene	28	J	28	J	SD-03-02-ME	1 / 1	44	28
cis-1,3-Dichloropropene						0 / 3	12 - 24	8.0
Dibromochloromethane						0 / 3	12 - 24	8.0
Ethylbenzene						0 / 4	12 - 24	8.3
Methylene chloride						0 / 4	12 - 132	23
Naphthalene						0 / 1	132	66
Styrene						0 / 3	12 - 24	8.0
Tetrachloroethene						0 / 4	12 - 132	23
Toluene						0 / 3	12 - 24	8.0
trans-1,2-Dichloroethene						0 / 1	132	66
trans-1,3-Dichloropropene						0 / 3	12 - 24	8
Trichloroethene						0 / 4	12 - 44	12
Vinyl chloride						0 / 4	12 - 132	23
Xylene, m/p-						0 / 1	44	22
Xylene, o-						0 / 1	44	22
Xylenes (total)						0 / 3	12 - 24	8.0
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	390 - 800	265
1,2-Dichlorobenzene						0 / 3	390 - 800	265
1,3-Dichlorobenzene						0 / 3	390 - 800	265
1,4-Dichlorobenzene						0 / 3	390 - 800	265
2,2'-oxybis(1-Chloropropane)						0 / 3	390 - 800	265
2,4,5-Trichlorophenol						0 / 3	990 - 2000	665
2,4,6-Trichlorophenol						0 / 3	390 - 800	265
2,4-Dichlorophenol						0 / 3	390 - 800	265
2,4-Dimethylphenol						0 / 3	390 - 800	265
2,4-Dinitrophenol						0 / 3	990 - 2000	665
2,4-Dinitrotoluene						0 / 3	390 - 800	265
2,6-Dinitrotoluene						0 / 3	390 - 800	265
2-Chloronaphthalene						0 / 3	390 - 800	265
2-Chlorophenol						0 / 3	390 - 800	265
2-Methylnaphthalene	16	J	16	J	SD-03-02-ME	1 / 4	67 - 800	203
2-Methylphenol						0 / 3	390 - 800	265
2-Nitroaniline						0 / 3	990 - 2000	665
2-Nitrophenol						0 / 3	390 - 800	265
3,3'-Dichlorobenzidine						0 / 3	390 - 800	265
3-Nitroaniline						0 / 3	990 - 2000	665

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TABLE 2-62
SEDIMENT DATA SUMMARY - STATION 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 3	990 - 2000	665
4-Bromophenyl-phenylether						0 / 3	390 - 800	265
4-Chloro-3-methylphenol						0 / 3	390 - 800	265
4-Chloroaniline						0 / 3	390 - 800	265
4-Chlorophenyl-phenyl ether						0 / 3	390 - 800	265
4-Methylphenol						0 / 3	390 - 800	265
4-Nitroaniline						0 / 3	990 - 2000	665
4-Nitrophenol						0 / 3	990 - 2000	665
Acenaphthene	45	J	45	J	SD-03-02-ME	1 / 4	67 - 800	210
Acenaphthylene	39	J	39	J	SD-03-02-ME	1 / 4	67 - 800	209
Anthracene	81	J	120		SD-03-02-ME	2 / 4	67 - 400	149
Benzo(a)anthracene	320	J	1300		SD-03-02-ME	2 / 4	67 - 400	504
Benzo(a)pyrene	420	J	1000		SD-03-02-ME	2 / 4	67 - 400	454
Benzo(b)fluoranthene	1400		1400		SD-03-02-ME	1 / 4	67 - 800	549
Benzo(g,h,i)perylene	350	J	570		SD-03-02-ME	2 / 4	67 - 400	329
Benzo(k)fluoranthene	640		640		SD-03-02-ME	1 / 4	67 - 800	359
bis(2-Chloroethoxy)methane						0 / 3	390 - 800	265
bis(2-Chloroethyl)ether						0 / 3	390 - 800	265
bis(2-Ethylhexyl)phthalate						0 / 3	390 - 800	265
Butylbenzylphthalate						0 / 3	390 - 800	265
Carbazole						0 / 3	390 - 800	265
Chrysene	590	J	1300		SD-03-02-ME	2 / 4	67 - 400	571
Di-n-butylphthalate						0 / 3	390 - 800	265
Di-n-octylphthalate						0 / 3	390 - 800	265
Dibenz(a,h)anthracene	110		110		SD-03-02-ME	1 / 4	67 - 800	226
Dibenzofuran						0 / 3	390 - 800	265
Diethylphthalate						0 / 3	390 - 800	265
Dimethylphthalate						0 / 3	390 - 800	265
Fluoranthene	740	J	2600		SD-03-02-ME	2 / 4	67 - 400	934
Fluorene	150		150		SD-03-02-ME	1 / 4	67 - 800	236
Hexachlorobenzene						0 / 3	390 - 800	265
Hexachlorobutadiene sv						0 / 3	390 - 800	265
Hexachlorocyclopentadiene						0 / 3	390 - 800	265
Hexachloroethane						0 / 3	390 - 800	265
Indeno(1,2,3-cd)pyrene	330	J	620		SD-03-02-ME	2 / 4	67 - 400	336
Isophorone						0 / 3	390 - 800	265
N-Nitroso-di-n-propylamine						0 / 3	390 - 800	265
N-nitrosodiphenylamine						0 / 3	390 - 800	265
Naphthalene	18	J	18	J	SD-03-02-ME	1 / 4	67 - 800	203
Nitrobenzene						0 / 3	390 - 800	265
Pentachlorophenol						0 / 3	990 - 2000	665
Phenanthrene	370	J	1000		SD-03-02-ME	2 / 4	67 - 400	441
Phenol						0 / 3	390 - 800	265
Pyrene	880	J	2600		SD-03-02-ME	2 / 4	67 - 400	969
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	3.2	1.6
4,4'-DDD	21		94		SD-03-02-ME	2 / 4	3.2 - 4	30
4,4'-DDE	18	J	29		SD-03-02-ME	2 / 4	3.2 - 4	13
4,4'-DDT	5.8	J	5.8	J	SD-03-02-ME	1 / 4	3.2 - 8	3.4
Aldrin						0 / 4	1.6 - 4.1	1.2
alpha-BHC						0 / 4	1.6 - 4.1	1.2
alpha-Chlordane	5.2	J	11	J	SD-03-02-ME	2 / 4	1.6 - 2.1	4.6
Aroclor 1016						0 / 4	3.2 - 80	20
Aroclor 1221						0 / 4	6.3 - 160	41
Aroclor 1232						0 / 4	3.2 - 80	20
Aroclor 1242						0 / 4	3.2 - 80	20
Aroclor 1248	160	J	160	J	SD-03-02-ME	1 / 4	3.2 - 80	60
Aroclor 1254						0 / 4	3.2 - 80	20
Aroclor 1260	110		110		SD-03-02-ME	1 / 4	3.2 - 80	47
beta-BHC						0 / 4	1.6 - 4.1	1.2

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TABLE 2-62
SEDIMENT DATA SUMMARY - STATION 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	2.3	J	2.3	J	SD-03-02-ME	1 / 4	1.6 - 4.1	1.6
Dieldrin						0 / 4	3.2 - 8	2.4
Endosulfan I						0 / 4	1.6 - 4.1	1.2
Endosulfan II						0 / 4	3.2 - 8	2.4
Endosulfan Sulfate						0 / 4	3.2 - 8	2.4
Endrin						0 / 4	3.2 - 8	2.4
Endrin Aldehyde	8.7	J	8.7	J	SD-03-02-FW	1 / 4	3.2 - 4	3.6
Endrin Ketone						0 / 4	3.2 - 8	2.4
gamma-BHC (Lindane)						0 / 4	1.6 - 4.1	1.2
gamma-Chlordane	9.3	J	9.3	J	SD-03-02-ME	1 / 4	1.6 - 4.1	3.4
Heptachlor						0 / 4	1.6 - 4.1	1.2
Heptachlor Epoxide						0 / 4	1.6 - 4.1	1.2
Methoxychlor						0 / 4	16 - 41	12
Toxaphene						0 / 4	160 - 410	123
Metals - mg/Kg								
Aluminum	2730		6720	J	SD-03-02-ME	4 / 4	3.5	4760
Antimony	0.41	J	1.7	J	SD-03-02-ME	3 / 4	0.27 - 0.55	0.92
Arsenic	5.4		86.5		SD-03-02-ME	4 / 4	0.22	35
Barium	9		84.6		SD-03-02-ME	4 / 4	0.018	34
Beryllium	0.42		0.59	J	SD-03-02-ME	2 / 4	0.028 - 0.15	0.29
Cadmium	3.3		5.2		SD-03-02-ME	2 / 4	0.028 - 0.35	2.1
Calcium	1380		4410		SD-03-02-ME	4 / 4	1.6	2828
Chromium	9.6		200	J	SD-03-02-ME	4 / 4	0.055	75
Cobalt	4		21.4	J	SD-03-02-ME	4 / 4	0.38	11
Copper	6.4		171		SD-03-02-ME	4 / 4	0.083	75
Cyanide						0 / 3	0.63 - 1.5	0.46
Iron	4450		21900	J	SD-03-02-ME	4 / 4	0.57	11005
Lead	10.1		345	J	SD-03-02-ME	4 / 4	0.27	125
Magnesium	1330		1790		SD-03-02-ME	4 / 4	3.5	1645
Manganese	69.1		503		SD-03-02-ME	4 / 4	0.018	234
Mercury	0.06	J	0.71		SD-03-02-ME	3 / 4	0.0051 - 0.04	0.26
Nickel	4.9		26.7	J	SD-03-02-ME	4 / 4	0.15	12
Potassium	519	J	630	J	SD-03-02-FW	4 / 4	2.7	571
Selenium	4.2	J	4.2	J	SD-03-02-ME	1 / 4	0.053 - 2	1.4
Silver	0.69	J	0.69	J	SD-03-02-ME	1 / 4	0.01 - 0.54	0.31
Sodium	279		321		SD-03-02-ME	2 / 4	0.22 - 59.1	162
Thallium						0 / 4	0.039 - 1.3	0.38
Vanadium	7.9		49.2		SD-03-02-ME	4 / 4	0.074	22
Zinc	60.4		1420	J	SD-03-02-ME	4 / 4	0.17	725
AVS-SEM - mg/Kg								
Arsenic						0 / 1	3.745	1.9
Cadmium	4.4		4.4		SD-03-02-FW	1 / 4	0.24 - 8.96	2.3
Copper						0 / 4	3.175 - 62.3	10
Lead	12		350	J	SD-03-02-ME	4 / 4	N/A	124
Mercury	0.020		0.020		SD-03-01-FW	1 / 4	0.003 - 10.03	1.3
Nickel	58	J	58	J	SD-03-02-ME	1 / 4	7.2 - 67.4	25
SEM/AVS Ratio	0.32		0.61		SD-03-03-FW	4 / 4	N/A	0.43
Sulfide	56	J	2825		SD-03-02-ME	4 / 4	N/A	1250
Zinc	66		1648	J	SD-03-02-ME	4 / 4	N/A	826
Total Combustible Organics (mg/Kg)	195000	J	195000	J	SD-03-02-ME	1 / 1	2000	195000
Total Organic Carbon (mg/Kg)	602		55000		SD-03-02-FW	3 / 3	N/A	18924

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-63
SEDIMENT DATA SUMMARY - STATION 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	24 - 29	13
1,1,1-Trichloroethane						0 / 6	15 - 221	43
1,1,2,2-Tetrachloroethane						0 / 5	15 - 74	20
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	50	25
1,1,2-Trichloroethane						0 / 5	15 - 74	20
1,1-Dichloroethane						0 / 5	15 - 221	47
1,1-Dichloroethene						0 / 5	15 - 221	47
1,2-Dichloroethane						0 / 5	15 - 221	47
1,2-Dichloroethene(total)						0 / 3	15 - 26	11
1,2-Dichloropropane						0 / 3	15 - 26	11
2-Butanone	82	J	99	J	SD-AO-03-TR	2 / 4	15 - 50	50
2-Hexanone						0 / 3	15 - 26	11
4-Methyl-2-pentanone						0 / 3	15 - 26	11
Acetone	340	J	340	J	SD-AO-03-TR	1 / 4	48 - 340	142
Benzene						0 / 5	15 - 32	12
Bromodichloromethane						0 / 3	15 - 26	11
Bromoform						0 / 3	15 - 26	11
Bromomethane						0 / 3	15 - 26	11
Carbon Disulfide						0 / 3	15 - 26	11
Carbon Tetrachloride						0 / 3	15 - 26	11
Chlorobenzene						0 / 3	15 - 26	11
Chloroethane						0 / 3	15 - 26	11
Chloroform						0 / 5	15 - 224	35
Chloromethane						0 / 3	15 - 26	11
cis-1,2-Dichloroethene						0 / 2	60 - 74	34
cis-1,3-Dichloropropene						0 / 3	15 - 26	11
Dibromochloromethane						0 / 3	15 - 26	11
Ethylbenzene						0 / 5	15 - 29	12
Methyl Acetate	140	J	140	J	SD-AO-03-TR	1 / 1	50	140
Methylene Chloride						0 / 6	23 - 221	45
Naphthalene						0 / 2	180 - 221	100
Styrene						0 / 3	15 - 26	11
Tetrachloroethene						0 / 5	15 - 221	47
Toluene	17	J	17	J	SD-AO-03-TR	1 / 4	15 - 50	12
trans-1,2-Dichloroethene						0 / 2	180 - 221	100
trans-1,3-Dichloropropene						0 / 3	15 - 26	11
Trichloroethene						0 / 5	15 - 74	20
Vinyl Chloride						0 / 5	15 - 221	47
Xylene, m/p-						0 / 2	60 - 74	34
Xylene, o-						0 / 2	60 - 74	34
Xylenes (total)						0 / 3	15 - 26	11
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	350	175
1,2,4-Trichlorobenzene sv						0 / 3	510 - 870	355
1,2-Dichlorobenzene						0 / 3	510 - 870	355
1,3-Dichlorobenzene						0 / 3	510 - 870	355
1,4-Dichlorobenzene						0 / 3	510 - 870	355
2,2'-oxybis(1-Chloropropane)						0 / 4	350 - 870	310
2,4,5-Trichlorophenol						0 / 4	870 - 2200	784
2,4,6-Trichlorophenol						0 / 4	350 - 870	310
2,4-Dichlorophenol						0 / 4	350 - 870	310
2,4-Dimethylphenol						0 / 4	350 - 870	310
2,4-Dinitrophenol						0 / 4	870 - 2200	784
2,4-Dinitrotoluene						0 / 4	350 - 870	310
2,6-Dinitrotoluene						0 / 4	350 - 870	310
2-Chloronaphthalene						0 / 4	350 - 870	310
2-Chlorophenol						0 / 4	350 - 870	310
2-Methylnaphthalene	41	J	70		SD-04-03-ME	2 / 6	67 - 870	225
2-Methylphenol						0 / 4	350 - 870	310
2-Nitroaniline						0 / 4	870 - 2200	784
2-Nitrophenol						0 / 4	350 - 870	310
3,3'-Dichlorobenzidine						0 / 4	350 - 870	310

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TABLE 2-63
SEDIMENT DATA SUMMARY - STATION 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3+4-Methylphenols						0 / 1	350	175
3-Nitroaniline						0 / 4	350 - 2200	719
4,6-Dinitro-2-methylphenol						0 / 4	870 - 2200	784
4-Bromophenyl-phenylether						0 / 4	350 - 870	310
4-Chloro-3-methylphenol						0 / 4	350 - 870	310
4-Chloroaniline						0 / 4	350 - 870	310
4-Chlorophenyl-phenyl ether						0 / 4	350 - 870	310
4-Methylphenol						0 / 3	510 - 870	355
4-Nitroaniline						0 / 4	870 - 2200	784
4-Nitrophenol						0 / 4	870 - 2200	784
Acenaphthene	110	J	340	J	SD-04-03-FW	4 / 6	67 - 510	198
Acenaphthylene	160		350	J	SD-04-03-FW	3 / 6	67 - 750	248
Acetophenone						0 / 1	350	175
Anthracene	180	J	960	J	SD-04-03-FW	5 / 6	67 - 350	489
Atrazine						0 / 1	350	175
Benzaldehyde						0 / 1	350	175
Benzo(a)anthracene	240	J	3900	J	SD-04-03-FW	6 / 6	67 - 350	2175
Benzo(a)pyrene	290	J	4200	J	SD-04-03-FW	6 / 6	67 - 350	2448
Benzo(b)fluoranthene	520		6000		SD-04-03-ME	6 / 6	67 - 350	3137
Benzo(g,h,i)perylene	460	J	2300	J	SD-04-03-FW	5 / 6	67 - 350	1356
Benzo(k)fluoranthene	490	J	3800		SD-04-03-ME	5 / 6	67 - 350	1994
bis(2-Chloroethoxy)methane						0 / 4	350 - 870	310
bis(2-Chloroethyl)ether						0 / 4	350 - 870	310
bis(2-Ethylhexyl)phthalate	230	J	230	J	SD-AO-03-TR	1 / 4	350 - 930	331
Butylbenzylphthalate						0 / 4	350 - 870	310
Caprolactam						0 / 1	350	175
Carbazole	130	J	400	J	SD-04-03-FW	2 / 4	350 - 510	240
Chrysene	290	J	5900	J	SD-04-03-FW	6 / 6	67 - 350	2857
Dibenz(a,h)anthracene	150	J	1100	J	SD-04-03-FW	5 / 6	67 - 350	588
Dibenzofuran	170	J	170	J	SD-04-03-FW	1 / 4	350 - 750	244
Diethylphthalate						0 / 4	350 - 870	310
Dimethylphthalate						0 / 4	350 - 870	310
Di-n-butylphthalate						0 / 4	350 - 870	310
Di-n-octylphthalate						0 / 4	350 - 870	310
Fluoranthene	540		8500		SD-04-03-ME	6 / 6	67 - 350	5007
Fluorene	180	J	490		SD-04-03-ME	4 / 6	67 - 510	310
Hexachlorobenzene						0 / 4	350 - 870	310
Hexachlorobutadiene sv						0 / 4	350 - 870	310
Hexachlorocyclopentadiene						0 / 4	350 - 870	310
Hexachloroethane						0 / 4	350 - 870	310
Indeno(1,2,3-cd)pyrene	380	J	2600		SD-04-02-ME	5 / 6	67 - 350	1476
Isophorone						0 / 4	350 - 870	310
Naphthalene	56	J	160	J	SD-04-03-FW	3 / 6	67 - 750	186
Nitrobenzene						0 / 4	350 - 870	310
N-Nitroso-di-n-propylamine						0 / 4	350 - 870	310
N-nitrosodiphenylamine						0 / 4	350 - 870	310
Pentachlorophenol						0 / 4	870 - 2200	784
Phenanthrene	200	J	4600	J	SD-04-03-FW	6 / 6	67 - 350	2367
Phenol						0 / 4	350 - 870	310
Pyrene	500		7000	J	SD-04-03-FW	6 / 6	67 - 350	4233
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.33 - 3.9	1.1
4,4'-DDD	37	J	160		SD-04-02-ME	3 / 6	0.33 - 37	62
4,4'-DDE	2.4	J	91		SD-04-02-ME	4 / 6	0.33 - 37	33
4,4'-DDT	4.4	J	21	J	SD-04-02-ME	2 / 5	0.33 - 37	12
Aldrin	0.3	J	0.3	J	SD-04-03-ME	1 / 5	0.16 - 19	3.6
alpha-BHC						0 / 5	0.16 - 19	3.5
alpha-Chlordane	21		29	J	SD-04-03-ME	2 / 5	0.16 - 19	13
Aroclor 1016						0 / 5	2.6 - 370	65
Aroclor 1221						0 / 5	5.2 - 760	135
Aroclor 1232						0 / 5	2.6 - 370	65

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TABLE 2-63
SEDIMENT DATA SUMMARY - STATION 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Aroclor 1242						0 / 5	2.6 - 370	65
Aroclor 1248	44	J	200	J	SD-04-02-ME	2 / 5	2.6 - 370	114
Aroclor 1254						0 / 5	2.6 - 370	65
Aroclor 1260	94		160		SD-04-03-ME	2 / 5	2.6 - 370	116
beta-BHC						0 / 5	0.16 - 19	3.5
delta-BHC	1.3	J	1.3	J	SD-04-03-ME	1 / 5	0.16 - 19	3.8
Dieldrin	0.73	J	0.73	J	SD-04-03-ME	1 / 5	0.33 - 37	7.0
Endosulfan I						0 / 5	0.16 - 19	3.5
Endosulfan II	0.49		0.49		SD-04-03-ME	1 / 5	0.33 - 37	7.0
Endosulfan sulfate	0.33	J	0.33	J	SD-04-03-ME	1 / 5	0.33 - 37	6.9
Endrin	3.2	J	5	J	SD-04-02-ME	2 / 5	0.33 - 37	8.1
Endrin aldehyde	4.9	J	11	J	SD-04-02-ME	2 / 5	0.33 - 37	10
Endrin ketone						0 / 5	0.33 - 37	6.9
gamma-BHC (Lindane)						0 / 5	0.16 - 19	3.5
gamma-Chlordane	16	J	22	J	SD-04-03-ME	2 / 5	0.16 - 19	11
Heptachlor						0 / 5	0.16 - 19	3.5
Heptachlor epoxide						0 / 5	0.16 - 19	3.5
Methoxychlor						0 / 5	1.6 - 190	35
Toxaphene						0 / 5	16 - 1900	355
Metals - mg/Kg								
Aluminum	3190		21100		SD-AO-05	11 / 11	3.4632 - 370	15529
Antimony	1	J	11.1	J	SD-04-02-ME	5 / 6	0.27 - 103	3.7
Arsenic	16.5		1570		SD-04-02-ME	11 / 11	0.22 - 406	233
Barium	11.6		215		SD-AO-05	11 / 11	0.018 - 35.9	138
Beryllium	0.4		1.7	J	SD-04-02-ME	10 / 11	0.028 - 4.75	0.94
Cadmium	0.8		19.1		SD-04-02-ME	11 / 11	0.1385 - 22.7	9.3
Calcium	1300		9840		SD-AO-03-TR	11 / 11	1.7 - 677	6152
Chromium	27		3000	J	SD-04-02-ME	11 / 11	0.055 - 63.7	505
Cobalt	6.8		42.7	J	SD-04-02-ME	11 / 11	0.3463 - 100	25
Copper	54.8		1080		SD-04-02-ME	11 / 11	0.083 - 45	415
Cyanide	0.52	J	1.8		SD-AO-03	5 / 8	0.2296 - 1.6	0.98
Iron	6650		86200	J	SD-04-02-ME	11 / 11	0.57 - 2406	38346
Lead	75.7		662		SD-AO-03	11 / 11	0.2078 - 75	474
Magnesium	1170		6495		SD-AO-02	11 / 11	3.5 - 855	4365
Manganese	51.9		2370		SD-AO-05	11 / 11	0.018 - 12.7	925
Mercury	0.06	J	13.6		SD-04-02-ME	11 / 11	0.0051 - 100	2.2
Nickel	5.8		46.6		SD-AO-05	11 / 11	0.15 - 63	33
Potassium	476	J	1840	J	SD-AO-03-TR	9 / 11	2.7 - 4930	1170
Selenium	1.6	J	3.4	J	SD-AO-05	7 / 11	0.053 - 498	1.8
Silver	0.38	J	0.91	J	SD-04-03-ME	6 / 11	0.01 - 41.7	0.44
Sodium	103		837		SD-04-02-FW	11 / 11	0.22 - 733	530
Thallium	0.6	J	1.6		SD-04-03-FW	6 / 11	0.039 - 400	0.65
Vanadium	12.3		84.1	J	SD-AO-05	11 / 11	0.074 - 87	58
Zinc	415		4330	J	SD-04-02-ME	11 / 11	0.17 - 75.9	2038
AVS-SEM - mg/Kg								
Arsenic	6.0	J	6.7	J	SD-04-02-ME	2 / 2	N/A	6.4
Cadmium	2.1		7.5		SD-04-02-FW	4 / 6	6.72 - 8.96	5.0
Copper	200	J	209		SD-AO-03-TR	2 / 6	3.175 - 54.5	77
Lead	163		466		SD-04-03-FW	6 / 6	N/A	314
Mercury	0.11	J	0.11	J	SD-AO-03-TR	1 / 6	0.01 - 10.03	1.7
Nickel	14	J	101	J	SD-04-02-FW	5 / 6	48	46
SEM/AVS Ratio	0.30		179		SD-AO-03-TR	6 / 6	N/A	30
Sulfide	4.1	J	4077	J	SD-04-02-FW	6 / 6	N/A	1338
Zinc	689		2310		SD-04-02-FW	6 / 6	N/A	1286
Wet Parameters - mg/Kg								
Chromium VI						0 / 1	9.878	4.9
pH	6.23		6.23		SD-AO-02	1 / 1	N/A	6.2
Redox Potential	-45		-45		SD-AO-02	1 / 1	N/A	-45
Sulfide	2840	J	2840	J	SD-AO-02	1 / 1	7.87	2840
Total Combustible Organics (mg/Kg)	21500		255000	J	SD-04-03-ME	5 / 5	2000	123460
Total Organic Carbon (mg/Kg)	210000		210000		SD-AO-03-TR	1 / 1	250	210000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-64
SEDIMENT DATA SUMMARY - STATION 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	4	2.0
1,1,1-Trichloroethane						0 / 4	12 - 28	9.0
1,1,2,2-Tetrachloroethane						0 / 4	9 - 20	6.6
1,1,2-Trichloroethane						0 / 4	9 - 20	6.6
1,1-Dichloroethane						0 / 4	12 - 28	9.0
1,1-Dichloroethene						0 / 4	12 - 28	9.0
1,2-Dichloroethane						0 / 4	12 - 28	9.0
1,2-Dichloroethene(total)	9	J	9	J	SD-05-03-FW	1 / 3	12	7.0
1,2-Dichloropropane						0 / 3	12 - 20	7.3
2-Butanone	39	J	39	J	SD-05-03-FW	1 / 3	12	17
2-Hexanone						0 / 3	12 - 20	7.3
4-Methyl-2-pentanone						0 / 3	12 - 20	7.3
Acetone						0 / 3	12 - 180	34
Benzene	6	J	6	J	SD-05-03-ME	1 / 4	4 - 20	7.0
Bromodichloromethane						0 / 3	12 - 20	7.3
Bromoform						0 / 3	12 - 20	7.3
Bromomethane						0 / 3	12 - 20	7.3
Carbon Disulfide						0 / 3	12 - 20	7.3
Carbon Tetrachloride						0 / 3	12 - 20	7.3
Chlorobenzene						0 / 3	12 - 20	7.3
Chloroethane						0 / 3	12 - 20	7.3
Chloroform						0 / 4	9 - 20	6.6
Chloromethane						0 / 3	12 - 20	7.3
cis-1,2-Dichloroethene	7	J	7	J	SD-05-03-ME	1 / 1	9	7.0
cis-1,3-Dichloropropene						0 / 3	12 - 20	7.3
Dibromochloromethane						0 / 3	12 - 20	7.3
Ethylbenzene	5	J	5	J	SD-05-03-ME	1 / 4	4 - 20	6.8
Methylene Chloride						0 / 4	12 - 28	9.0
Naphthalene	17	J	17	J	SD-05-03-ME	1 / 1	28	17
Styrene						0 / 3	12 - 20	7.3
Tetrachloroethene						0 / 4	12 - 28	9.0
Toluene						0 / 3	12 - 20	7.3
trans-1,2-Dichloroethene						0 / 1	28	14
trans-1,3-Dichloropropene						0 / 3	12 - 20	7.3
Trichloroethene	6	J	6	J	SD-05-03-ME	1 / 4	9 - 20	7.0
Vinyl Chloride						0 / 4	12 - 28	9.0
Xylene, m/p-	10	J	10	J	SD-05-03-ME	1 / 1	9	10
Xylene, o-						0 / 1	9	4.5
Xylenes (total)						0 / 3	12 - 20	7.3
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	390 - 650	242
1,2-Dichlorobenzene						0 / 3	390 - 650	242
1,3-Dichlorobenzene						0 / 3	390 - 650	242
1,4-Dichlorobenzene						0 / 3	390 - 650	242
2,2'-oxybis(1-Chloropropane)						0 / 3	390 - 650	242
2,4,5-Trichlorophenol						0 / 3	980 - 1600	597
2,4,6-Trichlorophenol						0 / 3	390 - 650	242
2,4-Dichlorophenol						0 / 3	390 - 650	242
2,4-Dimethylphenol						0 / 3	390 - 650	242
2,4-Dinitrophenol						0 / 3	980 - 1600	597
2,4-Dinitrotoluene						0 / 3	390 - 650	242
2,6-Dinitrotoluene						0 / 3	390 - 650	242
2-Chloronaphthalene						0 / 3	390 - 650	242
2-Chlorophenol						0 / 3	390 - 650	242
2-Methylnaphthalene	55.5	J	55.5	J	SD-05-03-ME	1 / 4	67 - 650	195
2-Methylphenol						0 / 3	390 - 650	242
2-Nitroaniline						0 / 3	980 - 1600	597
2-Nitrophenol						0 / 3	390 - 650	242
3,3'-Dichlorobenzidine						0 / 3	390 - 650	242
3-Nitroaniline						0 / 3	980 - 1600	597

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TABLE 2-64
SEDIMENT DATA SUMMARY - STATION 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 3	980 - 1600	597
4-Bromophenyl-phenylether						0 / 3	390 - 650	242
4-Chloro-3-methylphenol						0 / 3	390 - 650	242
4-Chloroaniline						0 / 3	390 - 650	242
4-Chlorophenyl-phenyl ether						0 / 3	390 - 650	242
4-Methylphenol						0 / 3	390 - 650	242
4-Nitroaniline						0 / 3	980 - 1600	597
4-Nitrophenol						0 / 3	980 - 1600	597
Acenaphthene	100	J	102	J	SD-05-03-ME	2 / 4	67 - 410	151
Acenaphthylene	36	J	250	J	SD-05-03-FW	2 / 4	67 - 410	172
Anthracene	245		520	J	SD-05-03-FW	2 / 4	67 - 410	291
Benzo(a)anthracene	130	J	2300	J	SD-05-03-FW	4 / 4	67	899
Benzo(a)pyrene	130	J	2500	J	SD-05-03-FW	4 / 4	67	884
Benzo(b)fluoranthene	130	J	3000	J	SD-05-03-FW	3 / 4	67 - 390	1015
Benzo(g,h,i)perylene	120	J	1200	J	SD-05-03-FW	3 / 4	67 - 410	458
Benzo(k)fluoranthene	120	J	1900	J	SD-05-03-FW	3 / 4	67 - 390	665
bis(2-Chloroethoxy)methane						0 / 3	390 - 650	242
bis(2-Chloroethyl)ether						0 / 3	390 - 650	242
bis(2-Ethylhexyl)phthalate						0 / 3	390 - 650	242
Butylbenzylphthalate						0 / 3	390 - 650	242
Carbazole	220	J	220	J	SD-05-03-FW	1 / 3	390 - 410	207
Chrysene	160	J	2900	J	SD-05-03-FW	4 / 4	67	1054
Di-n-butylphthalate						0 / 3	390 - 650	242
Di-n-octylphthalate						0 / 3	390 - 650	242
Dibenz(a,h)anthracene	112.5		112.5		SD-05-03-ME	1 / 4	67 - 650	209
Dibenzofuran	87	J	87	J	SD-05-03-FW	1 / 3	390 - 410	162
Diethylphthalate						0 / 3	390 - 650	242
Dimethylphthalate						0 / 3	390 - 650	242
Fluoranthene	260	J	4400	J	SD-05-03-FW	4 / 4	67	1813
Fluorene	225	J	230	J	SD-05-03-FW	2 / 4	67 - 410	214
Hexachlorobenzene						0 / 3	390 - 650	242
Hexachlorobutadiene sv						0 / 3	390 - 650	242
Hexachlorocyclopentadiene						0 / 3	390 - 650	242
Hexachloroethane						0 / 3	390 - 650	242
Indeno(1,2,3-cd)pyrene	64	J	1200	J	SD-05-03-FW	4 / 4	67	430
Isophorone						0 / 3	390 - 650	242
N-Nitroso-di-n-propylamine						0 / 3	390 - 650	242
N-nitrosodiphenylamine						0 / 3	390 - 650	242
Naphthalene	34.5	J	83	J	SD-05-03-FW	2 / 4	67 - 410	129
Nitrobenzene						0 / 3	390 - 650	242
Pentachlorophenol						0 / 3	980 - 1600	597
Phenanthrene	110	J	2200	J	SD-05-03-FW	4 / 4	67	1063
Phenol						0 / 3	390 - 650	242
Pyrene	250	J	4100	J	SD-05-03-FW	4 / 4	67	1690
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	3.3	1.7
4,4'-DDD	180		180		SD-05-03-ME	1 / 2	3.3 - 21	95
4,4'-DDE	35.5		35.5		SD-05-03-ME	1 / 2	3.3 - 21	23
4,4'-DDT	9.25	J	9.25	J	SD-05-03-ME	1 / 2	3.3 - 21	10
Aldrin						0 / 2	1.7 - 11	3.2
alpha-BHC						0 / 2	1.7 - 11	3.2
alpha-Chlordane	13.05	J	13.05	J	SD-05-03-ME	1 / 2	1.7 - 11	9.3
Aroclor 1016						0 / 2	3.3 - 210	53
Aroclor 1221						0 / 2	6.6 - 420	107
Aroclor 1232						0 / 2	3.3 - 210	53
Aroclor 1242						0 / 2	3.3 - 210	53
Aroclor 1248	120	J	120	J	SD-05-03-ME	1 / 2	3.3 - 210	113
Aroclor 1254						0 / 2	3.3 - 210	53
Aroclor 1260	74.5		74.5		SD-05-03-ME	1 / 2	3.3 - 210	90
beta-BHC						0 / 2	1.7 - 11	3.2

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TABLE 2-64
SEDIMENT DATA SUMMARY - STATION 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	3.65	J	3.65	J	SD-05-03-ME	1 / 2	1.7 - 11	4.6
Dieldrin	2.925	J	2.925	J	SD-05-03-ME	1 / 2	3.3 - 21	6.7
Endosulfan I						0 / 2	1.7 - 11	3.2
Endosulfan II						0 / 2	3.3 - 21	6.1
Endosulfan sulfate						0 / 2	3.3 - 21	6.1
Endrin						0 / 2	3.3 - 21	6.1
Endrin aldehyde						0 / 2	3.3 - 21	6.1
Endrin ketone						0 / 2	3.3 - 21	6.1
gamma-BHC (Lindane)						0 / 2	1.7 - 11	3.2
gamma-Chlordane	11.65	J	11.65	J	SD-05-03-ME	1 / 2	1.7 - 11	8.6
Heptachlor						0 / 2	1.7 - 11	3.2
Heptachlor epoxide						0 / 2	1.7 - 11	3.2
Methoxychlor						0 / 2	17 - 110	32
Toxaphene						0 / 2	170 - 1100	318
Metals - mg/Kg								
Aluminum	4470		6470		SD-05-02-FW	4 / 4	3.7	5073
Antimony	0.44	J	1.8	J	SD-05-03-FW	4 / 4	0.28	1.2
Arsenic	5.1		24.8		SD-05-03-FW	4 / 4	0.23	12
Barium	21.3		43.2		SD-05-02-FW	4 / 4	0.019	32
Beryllium	0.18		0.3		SD-05-03-FW	4 / 4	0.029	0.26
Cadmium	0.62		1.6		SD-05-03-FW	2 / 4	0.0048 - 0.043	0.56
Calcium	1340		1850		SD-05-02-FW	4 / 4	1.7	1528
Chromium	15		149		SD-05-03-FW	4 / 4	0.058	62
Cobalt	5	J	16		SD-05-03-FW	4 / 4	0.39	8.5
Copper	10.9		80.3		SD-05-03-FW	4 / 4	0.086	39
Cyanide						0 / 3	0.6 - 0.98	0.37
Iron	7990		14200		SD-05-01-FW	4 / 4	0.59	11163
Lead	39.3		655	J	SD-05-03-ME	4 / 4	0.28	236
Magnesium	1400		4440		SD-05-02-FW	4 / 4	3.7	2566
Manganese	97.45		952		SD-05-02-FW	4 / 4	0.019	349
Mercury	0.225		1.2	J	SD-05-03-FW	2 / 4	0.005 - 0.05	0.37
Nickel	6.8		11	J	SD-05-03-ME	4 / 4	0.15	9.3
Potassium	535.5	J	755	J	SD-05-01-FW	3 / 4	2.8 - 487	542
Selenium						0 / 4	0.053 - 2.1	0.47
Silver	0.455	J	0.455	J	SD-05-03-ME	1 / 4	0.01 - 0.54	0.25
Sodium	94.15		216		SD-05-03-FW	2 / 4	0.23 - 55.9	89
Thallium	0.85		0.97		SD-05-02-FW	2 / 4	0.038 - 1.3	0.62
Vanadium	12.5		23.55		SD-05-03-ME	4 / 4	0.077	17
Zinc	111		571		SD-05-03-FW	4 / 4	0.17	234
AVS-SEM - mg/Kg								
Arsenic						0 / 1	3.745	1.9
Cadmium	0.21	J	4.9		SD-05-03-FW	3 / 4	5.6	2.0
Copper	15	J	195		SD-05-03-FW	2 / 4	11.9 - 13.3	56
Lead	21		334		SD-05-03-FW	4 / 4	N/A	148
Mercury						0 / 4	0.01 - 10.03	1.3
Nickel	4.7	J	4.7	J	SD-05-03-ME	1 / 4	2.2 - 49.8	12
SEM/AVS Ratio	0.22		5.5		SD-05-01-FW	4 / 4	N/A	2.5
Sulfide	7.7	J	1528	J	SD-05-03-FW	4 / 4	N/A	548
Zinc	75		1460		SD-05-03-FW	4 / 4	N/A	455
Total Combustible Organics (mg/Kg)	1840		59100	J	SD-05-03-ME	4 / 4	2000	30195

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-65
SEDIMENT DATA SUMMARY - STATION 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	13	6.5
1,1,1-Trichloroethane						0 / 5	20 - 96	19
1,1,2,2-Tetrachloroethane						0 / 4	20 - 32	13
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	26	13
1,1,2-Trichloroethane						0 / 4	20 - 32	13
1,1-Dichloroethane						0 / 4	20 - 96	21
1,1-Dichloroethene						0 / 4	20 - 96	21
1,2-Dichloroethane						0 / 4	20 - 96	21
1,2-Dichloroethene(total)						0 / 3	20 - 29	12
1,2-Dichloropropane						0 / 3	20 - 29	12
2-Butanone	45		62		SD-06-01-FW	3 / 3	N/A	51
2-Hexanone						0 / 3	20 - 29	12
4-Methyl-2-pentanone						0 / 3	20 - 29	12
Acetone						0 / 4	26 - 280	105
Benzene	17	J	17	J	SD-06-03-ME	1 / 4	13 - 29	13
Bromodichloromethane						0 / 3	20 - 29	12
Bromoform						0 / 3	20 - 29	12
Bromomethane						0 / 3	20 - 29	12
Carbon Disulfide						0 / 3	20 - 29	12
Carbon Tetrachloride						0 / 3	20 - 29	12
Chlorobenzene						0 / 3	20 - 29	12
Chloroethane						0 / 3	20 - 29	12
Chloroform						0 / 4	20 - 32	13
Chloromethane						0 / 3	20 - 29	12
cis-1,2-Dichloroethene	38	J	38	J	SD-06-03-ME	1 / 1	32	38
cis-1,3-Dichloropropene						0 / 3	20 - 29	12
Dibromochloromethane						0 / 3	20 - 29	12
Ethylbenzene	9	J	9	J	SD-06-03-ME	1 / 4	13 - 29	11
Methyl Acetate	35	J	35	J	SD-06-03-TR	1 / 1	26	35
Methylene Chloride						0 / 5	20 - 96	23
Naphthalene	70	J	70	J	SD-06-03-ME	1 / 1	96	70
Styrene						0 / 3	20 - 29	12
Tetrachloroethene						0 / 4	20 - 96	21
Toluene						0 / 3	20 - 29	12
trans-1,2-Dichloroethene						0 / 1	96	48
trans-1,3-Dichloropropene						0 / 3	20 - 29	12
Trichloroethene	52	J	52	J	SD-06-03-ME	1 / 4	20 - 32	22
Vinyl Chloride						0 / 4	20 - 96	21
Xylene, m/p-	25	J	25	J	SD-06-03-ME	1 / 1	32	25
Xylene, o-						0 / 1	32	16
Xylenes (total)						0 / 3	20 - 29	12
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	630	315
1,2,4-Trichlorobenzene sv						0 / 3	650 - 2900	713
1,2-Dichlorobenzene						0 / 3	650 - 2900	713
1,3-Dichlorobenzene						0 / 3	650 - 2900	713
1,4-Dichlorobenzene						0 / 3	650 - 2900	713
2,2'-oxybis(1-Chloropropane)						0 / 4	630 - 2900	614
2,4,5-Trichlorophenol						0 / 4	1600 - 7300	1538
2,4,6-Trichlorophenol						0 / 4	630 - 2900	614
2,4-Dichlorophenol						0 / 4	630 - 2900	614
2,4-Dimethylphenol						0 / 4	630 - 2900	614
2,4-Dinitrophenol						0 / 4	1600 - 7300	1538
2,4-Dinitrotoluene						0 / 4	630 - 2900	614
2,6-Dinitrotoluene						0 / 4	630 - 2900	614
2-Chloronaphthalene						0 / 4	630 - 2900	614
2-Chlorophenol						0 / 4	630 - 2900	614
2-Methylnaphthalene	40	J	40	J	SD-06-03-ME	1 / 5	67 - 2900	499
2-Methylphenol						0 / 4	630 - 2900	614
2-Nitroaniline						0 / 4	1600 - 7300	1538
2-Nitrophenol						0 / 4	630 - 2900	614
3,3'-Dichlorobenzidine						0 / 4	630 - 2900	614

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TABLE 2-65
SEDIMENT DATA SUMMARY - STATION 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3+4-Methylphenols						0 / 1	630	315
3-Nitroaniline						0 / 4	1600 - 7300	1538
4,6-Dinitro-2-methylphenol						0 / 4	1600 - 7300	1538
4-Bromophenyl-phenylether						0 / 4	630 - 2900	614
4-Chloro-3-methylphenol						0 / 4	630 - 2900	614
4-Chloroaniline						0 / 4	630 - 2900	614
4-Chlorophenyl-phenyl ether						0 / 4	630 - 2900	614
4-Methylphenol						0 / 3	650 - 2900	713
4-Nitroaniline						0 / 4	1600 - 7300	1538
4-Nitrophenol						0 / 4	1600 - 7300	1538
Acenaphthene	130	J	130	J	SD-06-03-ME	1 / 5	67 - 2900	517
Acenaphthylene	110	J	130	J	SD-06-01-FW	3 / 5	67 - 2900	425
Acetophenone						0 / 1	630	315
Anthracene	64	J	1300	J	SD-06-03-FW	5 / 5	67 - 630	477
Atrazine						0 / 1	630	315
Benzaldehyde						0 / 1	630	315
Benzo(a)anthracene	310	J	4200	J	SD-06-03-ME	5 / 5	67 - 630	1788
Benzo(a)pyrene	370	J	5100	J	SD-06-03-ME	5 / 5	67 - 630	1910
Benzo(b)fluoranthene	610	J	6100	J	SD-06-03-ME	4 / 5	67 - 730	2087
Benzo(g,h,i)perylene	150	J	1900	J	SD-06-03-ME	5 / 5	10 - 67	954
Benzo(k)fluoranthene	160	J	2400	J	SD-06-03-FW	4 / 5	67 - 730	983
bis(2-Chloroethoxy)methane						0 / 4	630 - 2900	614
bis(2-Chloroethyl)ether						0 / 4	630 - 2900	614
bis(2-Ethylhexyl)phthalate	430	J	3000		SD-06-02-FW	2 / 4	630 - 3300	1620
Butylbenzylphthalate						0 / 4	630 - 2900	614
Caprolactam						0 / 1	630	315
Carbazole	98	J	98	J	SD-06-01-FW	1 / 4	630 - 2900	547
Chrysene	450	J	6900	J	SD-06-03-ME	5 / 5	67 - 630	2690
Dibenz(a,h)anthracene	720	J	720	J	SD-06-03-ME	1 / 5	67 - 2900	635
Dibenzofuran						0 / 4	630 - 2900	614
Diethylphthalate						0 / 4	630 - 2900	614
Dimethylphthalate						0 / 4	630 - 2900	614
Di-n-butylphthalate						0 / 4	630 - 2900	614
Di-n-octylphthalate						0 / 4	630 - 2900	614
Fluoranthene	780		11000		SD-06-03-FW	5 / 5	67 - 630	5016
Fluorene	110	J	430	J	SD-06-03-FW	3 / 5	67 - 650	316
Hexachlorobenzene						0 / 4	630 - 2900	614
Hexachlorobutadiene sv						0 / 4	630 - 2900	614
Hexachlorocyclopentadiene						0 / 4	630 - 2900	614
Hexachloroethane						0 / 4	630 - 2900	614
Indeno(1,2,3-cd)pyrene	150	J	2400	J	SD-06-03-ME	5 / 5	67 - 630	968
Isophorone						0 / 4	630 - 2900	614
Naphthalene	53	J	53	J	SD-06-03-ME	1 / 5	67 - 2900	502
Nitrobenzene						0 / 4	630 - 2900	614
N-Nitroso-di-n-propylamine						0 / 4	630 - 2900	614
N-nitrosodiphenylamine						0 / 4	630 - 2900	614
Pentachlorophenol						0 / 4	1600 - 7300	1538
Phenanthrene	340	J	6300		SD-06-03-FW	5 / 5	67 - 630	2666
Phenol						0 / 4	630 - 2900	614
Pyrene	600	J	7500		SD-06-03-ME	5 / 5	67 - 630	3380
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	3.2	1.6
4,4'-DDD	2.2		94	J	SD-06-01-FW	5 / 5	1.3 - 3.2	71
4,4'-DDE	2.6		100	J	SD-06-03-FW	5 / 5	1.3 - 3.2	71
4,4'-DDT	15	J	32	J	SD-06-01-FW	2 / 4	1.3 - 49	18
Aldrin						0 / 4	0.63 - 25	5.8
alpha-BHC						0 / 4	0.63 - 25	5.8
alpha-Chlordane	27	J	80		SD-06-03-ME	4 / 5	0.63 - 1.6	34
Aroclor 1016						0 / 4	3.2 - 490	110
Aroclor 1221						0 / 4	6.4 - 990	220
Aroclor 1232						0 / 4	3.2 - 490	110
Aroclor 1242						0 / 4	3.2 - 490	110
Aroclor 1248	120	J	120	J	SD-06-03-ME	1 / 4	3.2 - 490	139
Aroclor 1254						0 / 4	3.2 - 490	110
Aroclor 1260	82		82		SD-06-03-ME	1 / 4	3.2 - 490	130
beta-BHC						0 / 4	0.63 - 25	5.8
delta-BHC	25	J	25	J	SD-06-03-ME	1 / 4	0.63 - 25	12
Dieldrin	5	J	5	J	SD-06-03-ME	1 / 4	1.3 - 49	12
Endosulfan I						0 / 4	0.63 - 25	5.8
Endosulfan II						0 / 4	1.3 - 49	11
Endosulfan sulfate						0 / 4	1.3 - 49	11

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TABLE 2-65
SEDIMENT DATA SUMMARY - STATION 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Endrin	17	J	17	J	SD-06-03-ME	1 / 4	1.3 - 49	15
Endrin aldehyde						0 / 4	1.3 - 49	11
Endrin ketone						0 / 4	1.3 - 49	11
gamma-BHC (Lindane)						0 / 4	0.63 - 25	5.8
gamma-Chlordane	48	J	48	J	SD-06-03-ME	1 / 4	0.63 - 25	18
Heptachlor						0 / 4	0.63 - 25	5.8
Heptachlor epoxide						0 / 4	0.63 - 25	5.8
Methoxychlor						0 / 4	6.3 - 250	58
Toxaphene						0 / 4	63 - 2500	578
Metals - mg/Kg								
Aluminum	4780		15700		SD-JP-01	6 / 6	3.5 - 9.14	9907
Antimony	1.2	J	2.8	J	SD-06-03-FW	6 / 6	0.26 - 0.74	2.3
Arsenic	21.8		135		SD-06-03-ME	6 / 6	0.22 - 1	74
Barium	28.9		130		SD-06-03-ME	6 / 6	0.018 - 0.4439	77
Beryllium	0.28		1		SD-06-03-ME	6 / 6	0.027 - 0.2	0.61
Cadmium	1.5		9.8		SD-JP-01	6 / 6	0.037 - 0.6	5.0
Calcium	1740		5850	J	SD-JP-01	6 / 6	1.6 - 8.8771	3800
Chromium	172		442		SD-06-03-FW	6 / 6	0.055 - 1	306
Cobalt	6		20.9		SD-06-03-ME	6 / 6	0.36 - 0.4439	14
Copper	83.9		435		SD-JP-01	6 / 6	0.082 - 0.4439	238
Cyanide	2.2		3	J	SD-JP-01	2 / 4	0.4085 - 1.5	1.6
Iron	9930		40600		SD-06-03-ME	6 / 6	0.57 - 1.7754	22738
Lead	193		455		SD-06-03-ME	6 / 6	0.26 - 0.6	366
Magnesium	1610		4840		SD-JP-01	6 / 6	0.82 - 15.18	3042
Manganese	296		1630		SD-06-03-ME	6 / 6	0.018 - 0.4439	679
Mercury	0.4	J	3.2		SD-JP-01	6 / 6	0.005 - 0.1235	1.4
Nickel	10.7		35.5	J	SD-JP-01	6 / 6	0.15 - 0.8	22
Potassium	551	J	1380		SD-06-03-ME	6 / 6	2.7 - 17.754	941
Selenium	1.6	J	3.4	J	SD-06-03-ME	2 / 6	0.4 - 2.1	1.3
Silver	0.18	J	0.18	J	SD-06-03-ME	1 / 6	0.01 - 1	0.27
Sodium	214		755		SD-06-03-FW	5 / 6	0.22 - 617	497
Thallium	0.92	J	1.2		SD-06-03-FW	2 / 6	0.043 - 1.2	0.68
Vanadium	24.5		60.2		SD-06-03-ME	6 / 6	0.073 - 0.64	41
Zinc	384		1920		SD-JP-01	6 / 6	0.16 - 1.7	1068
AVS-SEM - mg/Kg								
Arsenic	13	J	13	J	SD-06-03-ME	1 / 1	N/A	13
Cadmium	2.9		6.7		SD-06-03-ME	5 / 5	N/A	4.6
Copper	5.1		166	J	SD-06-02-FW	5 / 5	N/A	126
Lead	248		455		SD-06-02-FW	5 / 5	N/A	342
Mercury	0.10	J	0.10	J	SD-06-03-TR	1 / 4	0.01	0.029
Nickel	12		120	J	SD-06-01-FW	5 / 5	N/A	70
SEM/AVS Ratio	0.054		22		SD-06-03-TR	5 / 5	N/A	4.9
Sulfide	21	J	13322	J	SD-06-03-FW	5 / 5	N/A	4849
Zinc	606		1070		SD-06-03-FW	5 / 5	N/A	749
Wet Parameters - mg/Kg								
Chromium VI						0 / 1	6.41	3
pH	6.84		6.84		SD-JP-01	1 / 1	N/A	7
Redox Potential	-56		-56		SD-JP-01	1 / 1	N/A	-56
Sulfide	356	J	356	J	SD-JP-01	1 / 1	10.19	356
Total Combustible Organics (mg/Kg)	41600		197000	J	SD-06-03-ME	4 / 4	2000	88800
Total Organic Carbon (mg/Kg)	100000		100000		SD-06-03-TR	1 / 1	250	100000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-66
SEDIMENT DATA SUMMARY - STATION 7
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 3	10 - 13	5.7
1,1,1-Trichloroethane						0 / 12	13 - 101	19
1,1,2,2-Tetrachloroethane						0 / 12	13 - 34	12
1,1,2-Trichloroethane						0 / 12	13 - 34	12
1,1-Dichloroethane						0 / 12	13 - 101	19
1,1-Dichloroethene						0 / 12	13 - 101	19
1,2-Dichloroethane						0 / 12	13 - 101	19
1,2-Dichloroethene(total)						0 / 9	13 - 28	11
1,2-Dichloropropane						0 / 9	13 - 28	11
2-Butanone	10.25	J	89		SD-07-04-FW	3 / 10	13 - 28	23
2-Hexanone						0 / 9	13 - 28	11
4-Methyl-2-pentanone						0 / 9	13 - 28	11
Acetone						0 / 9	21 - 280	46
Benzene						0 / 12	10 - 28	9.8
Bromodichloromethane						0 / 9	13 - 28	11
Bromoform						0 / 9	13 - 28	11
Bromomethane						0 / 9	13 - 28	11
Carbon Disulfide						0 / 9	13 - 28	11
Carbon Tetrachloride						0 / 9	13 - 28	11
Chlorobenzene						0 / 9	13 - 28	11
Chloroethane						0 / 9	13 - 28	11
Chloroform						0 / 12	13 - 34	12
Chloromethane						0 / 9	13 - 28	11
cis-1,2-Dichloroethene	18	J	24	J	SD-07-10-ME	3 / 3	25 - 34	21
cis-1,3-Dichloropropene						0 / 9	13 - 28	11
Dibromochloromethane						0 / 9	13 - 28	11
Ethylbenzene	5	J	5	J	SD-07-02-ME	1 / 12	10 - 28	9.8
Methylene chloride						0 / 12	14 - 180	36
Naphthalene						0 / 3	74 - 101	42
Styrene						0 / 9	13 - 28	11
Tetrachloroethene						0 / 12	13 - 101	19
Toluene						0 / 9	13 - 28	11
trans-1,2-Dichloroethene						0 / 3	74 - 101	42
trans-1,3-Dichloropropene						0 / 9	13 - 28	11
Trichloroethene	16	J	35	J	SD-07-10-ME	3 / 12	13 - 34	15
Vinyl chloride						0 / 12	13 - 101	19
Xylene, m/p-						0 / 3	25 - 34	14
Xylene, o-						0 / 3	25 - 34	14
Xylenes (total)						0 / 9	13 - 28	11
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 9	420 - 2700	559
1,2-Dichlorobenzene						0 / 9	420 - 2700	559
1,3-Dichlorobenzene						0 / 9	420 - 2700	559
1,4-Dichlorobenzene						0 / 9	420 - 2700	559
2,2'-oxybis(1-Chloropropane)						0 / 9	420 - 2700	559
2,4,5-Trichlorophenol						0 / 9	1000 - 6800	1400
2,4,6-Trichlorophenol						0 / 9	420 - 2700	559
2,4-Dichlorophenol						0 / 9	420 - 2700	559
2,4-Dimethylphenol						0 / 9	420 - 2700	559
2,4-Dinitrophenol						0 / 9	1000 - 6800	1400
2,4-Dinitrotoluene						0 / 9	420 - 2700	559
2,6-Dinitrotoluene						0 / 9	420 - 2700	559
2-Chloronaphthalene						0 / 9	420 - 2700	559
2-Chlorophenol						0 / 9	420 - 2700	559
2-Methylnaphthalene	44	J	130	J	SD-07-10-FW	6 / 12	67 - 2700	371
2-Methylphenol						0 / 9	420 - 2700	559
2-Nitroaniline						0 / 9	1000 - 6800	1400
2-Nitrophenol						0 / 9	420 - 2700	559
3,3'-Dichlorobenzidine						0 / 9	420 - 2700	559
3-Nitroaniline						0 / 9	1000 - 6800	1400

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TABLE 2-66
SEDIMENT DATA SUMMARY - STATION 7
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 9	1000 - 6800	1400
4-Bromophenyl-phenylether						0 / 9	420 - 2700	559
4-Chloro-3-methylphenol						0 / 9	420 - 2700	559
4-Chloroaniline						0 / 9	420 - 2700	559
4-Chlorophenyl-phenyl ether						0 / 9	420 - 2700	559
4-Methylphenol						0 / 9	420 - 2700	559
4-Nitroaniline						0 / 9	1000 - 6800	1400
4-Nitrophenol						0 / 9	1000 - 6800	1400
Acenaphthene	110	J	390	J	SD-07-09-FW	11 / 13	67 - 540	239
Acenaphthylene	67	J	480	J	SD-07-10-FW	8 / 12	67 - 2700	367
Anthracene	131	J	1100	J	SD-07-09-FW	13 / 13	67	605
Benzo(a)anthracene	415	J	9600		SD-07-10-ME	13 / 13	67	3993
Benzo(a)pyrene	490	J	10000		SD-07-10-ME	13 / 13	67	3891
Benzo(b)fluoranthene	555		16000	J	SD-07-10-ME	13 / 13	67	6812
Benzo(g,h,i)perylene	270	J	5300		SD-07-10-ME	12 / 13	67 - 890	1778
Benzo(k)fluoranthene	480	J	14000	J	SD-07-05-FW	13 / 13	67	5291
bis(2-Chloroethoxy)methane						0 / 9	420 - 2700	559
bis(2-Chloroethyl)ether						0 / 9	420 - 2700	559
bis(2-Ethylhexyl)phthalate	390	J	13000	J	SD-07-05-FW	9 / 10	790	4919
Butylbenzylphthalate	160	J	620	J	SD-07-05-FW	6 / 10	420 - 870	344
Carbazole	83	J	680	J	SD-07-09-FW	10 / 10	N/A	338
Chrysene	670	J	10000		SD-07-10-ME	13 / 13	67	4996
Di-n-butylphthalate						0 / 9	420 - 2700	632
Di-n-octylphthalate	140	J	430	J	SD-07-05-FW	3 / 10	420 - 2700	459
Dibenz(a,h)anthracene	82	J	2000		SD-07-10-ME	11 / 13	67 - 890	573
Dibenzofuran	96	J	190	J	SD-07-06-FW	4 / 9	430 - 2700	407
Diethylphthalate	240	J	240	J	SD-07-04-FW	1 / 9	420 - 2700	537
Dimethylphthalate						0 / 9	420 - 2700	559
Fluoranthene	1000		23000		SD-07-10-ME	13 / 13	67	9142
Fluorene	100	J	640		SD-07-02-ME	12 / 13	67 - 430	391
Hexachlorobenzene						0 / 9	420 - 2700	559
Hexachlorobutadiene sv						0 / 9	420 - 2700	559
Hexachlorocyclopentadiene						0 / 9	420 - 2700	559
Hexachloroethane						0 / 9	420 - 2700	559
Indeno(1,2,3-cd)pyrene	220	J	6900		SD-07-10-ME	12 / 13	67 - 890	2028
Isophorone						0 / 9	420 - 2700	559
N-Nitroso-di-n-propylamine						0 / 9	420 - 2700	559
N-nitrosodiphenylamine						0 / 9	420 - 2700	559
Naphthalene	52	J	130	J	SD-07-10-FW	6 / 12	67 - 2700	367
Nitrobenzene						0 / 9	420 - 2700	559
Pentachlorophenol						0 / 9	1000 - 6800	1400
Phenanthrene	400	J	12000		SD-07-10-ME	13 / 13	67	4138
Phenol						0 / 9	420 - 2700	559
Pyrene	840	J	15000		SD-07-10-ME	13 / 13	67	7080
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 3	3.2 - 3.3	1.6
4,4'-DDD	18		76		SD-07-10-FW	12 / 13	3.2 - 21	39
4,4'-DDE	12	J	69		SD-07-10-FW	12 / 13	3.2 - 21	32
4,4'-DDT	3.8	J	47		SD-07-10-FW	12 / 13	3.2 - 21	22
Aldrin	0.24	J	5.7		SD-07-09-FW	6 / 12	1.6 - 11	2.6
alpha-BHC	0.31	J	2.7	J	SD-07-02-FW	6 / 13	1.6 - 11	1.6
alpha-Chlordane	9.25	J	80		SD-07-10-ME	13 / 13	1.6	35
Aroclor 1016						0 / 12	3.2 - 210	35
Aroclor 1221						0 / 12	6.4 - 440	72
Aroclor 1232						0 / 12	3.2 - 210	35
Aroclor 1242						0 / 12	3.2 - 210	35
Aroclor 1248	29	J	67	J	SD-07-10-ME	3 / 12	3.2 - 210	46
Aroclor 1254						0 / 12	3.2 - 210	35
Aroclor 1260	50		95		SD-07-02-ME	3 / 12	3.2 - 210	53
beta-BHC	1.5	J	6.6		SD-07-07-FW	7 / 13	1.6 - 11	3.2

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TABLE 2-66
SEDIMENT DATA SUMMARY - STATION 7
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	0.33	J	24	J	SD-07-05-ME	7 / 13	1.6 - 11	4.5
Dieldrin	0.59	J	7	J	SD-07-06-FW	9 / 13	3.2 - 21	3.6
Endosulfan I						0 / 12	1.6 - 11	2.0
Endosulfan II	1.3	J	8.4	J	SD-07-09-FW	7 / 13	3.2 - 21	4.1
Endosulfan Sulfate	2.1	J	3.9	J	SD-07-04-FW	2 / 13	3.2 - 21	3.7
Endrin	0.6	J	17	J	SD-07-05-ME	7 / 12	3.2 - 21	6.5
Endrin Aldehyde	0.94	J	27	J	SD-07-02-ME	7 / 12	3.2 - 21	5.5
Endrin Ketone	1.8	J	2.7	J	SD-07-08-FW	3 / 12	3.2 - 21	3.5
gamma-BHC (Lindane)	1.4	J	1.4	J	SD-07-02-FW	2 / 12	1.6 - 11	1.9
gamma-Chlordane	8.8		53	J	SD-07-04-FW	12 / 13	1.6 - 11	26
Heptachlor	0.18	J	1.6	J	SD-07-06-ME	6 / 13	1.6 - 11	1.4
Heptachlor Epoxide	0.45	J	3.7	J	SD-07-05-FW	8 / 13	1.6 - 11	2.1
Methoxychlor	6.3	J	12	J	SD-07-10-FW	3 / 12	16 - 110	17
Toxaphene						0 / 12	160 - 1100	199
Metals - mg/Kg								
Aluminum	4890	J	22600	J	SD-07-10-FW	13 / 13	3.5 - 3.6	10171
Antimony	0.72		3.1		SD-07-10-FW	13 / 13	0.26 - 0.27	2.0
Arsenic	10.3	J	129	J	SD-07-10-FW	13 / 13	0.22	62
Barium	21.35		118		SD-07-05-ME	13 / 13	0.018 - 0.019	67
Beryllium	0.23		1.3		SD-07-10-FW	10 / 13	0.027 - 0.32	0.56
Cadmium	0.645		10.3		SD-07-10-FW	7 / 13	0.037 - 6.1	3.4
Calcium	1630		6630		SD-07-05-ME	13 / 13	1.6 - 1.7	3840
Chromium	31.9	J	442	J	SD-07-10-FW	13 / 13	0.055 - 0.056	184
Cobalt	6.1		32.6		SD-07-10-FW	13 / 13	0.37 - 0.38	14
Copper	23.4	J	380	J	SD-07-10-FW	13 / 13	0.082 - 0.084	175
Cyanide	1.4		1.8		SD-07-05-FW	2 / 10	0.54 - 1.4	0.72
Iron	9490	J	35400		SD-07-05-ME	13 / 13	0.57 - 0.58	20693
Lead	41.2		480		SD-07-04-FW	13 / 13	0.26 - 0.27	267
Magnesium	1620	J	5860	J	SD-07-08-FW	13 / 13	0.82 - 0.84	3574
Manganese	108.55		595	J	SD-07-04-FW	13 / 13	0.018 - 0.019	337
Mercury	0.28	J	5.7	J	SD-07-10-FW	12 / 13	0.005 - 0.11	1.4
Nickel	8.2		37.5		SD-07-05-ME	13 / 13	0.15	23
Potassium	574	J	1900	J	SD-07-08-FW	12 / 13	2.7 - 610	1072
Selenium	1.9		2.4	J	SD-07-10-ME	4 / 13	0.052 - 3.2	1.2
Silver	0.78	J	1.1		SD-07-04-FW	4 / 13	0.0095 - 0.79	0.46
Sodium	30.85	J	342		SD-07-04-FW	2 / 13	0.22 - 519	151
Thallium	0.815		3.8		SD-07-10-FW	9 / 13	0.043 - 1.6	1.6
Vanadium	17.2		79.2		SD-07-10-FW	13 / 13	0.073 - 0.075	40
Zinc	106	J	2490	J	SD-07-10-FW	13 / 13	0.16 - 0.17	974
AVS-SEM - mg/Kg								
Arsenic	7.5	J	14	J	SD-07-02-ME	3 / 3	N/A	11
Cadmium	1.1		8.0	J	SD-07-05-FW	7 / 13	0.37 - 5.6	3.5
Copper	12		262		SD-07-05-FW	10 / 13	3.175 - 25.6	89
Lead	36		652		SD-07-02-FW	13 / 13	N/A	282
Mercury						0 / 10	0.003 - 0.01	0.0041
Nickel	13	J	156	J	SD-07-10-FW	10 / 13	2.9 - 82.9	41
SEM/AVS Ratio	0.079		4.0		SD-07-06-FW	13 / 13	N/A	0.77
Sulfide	168		13482	J	SD-07-05-FW	13 / 13	N/A	2308
Zinc	111		1740		SD-07-05-FW	13 / 13	N/A	852
Total Combustible Organics (mg/Kg)	13800		218000	J	SD-07-10-ME	13 / 13	2000	95865

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-67
SEDIMENT DATA SUMMARY - STATION 8
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 3	12 - 15	6.7
1,1,2,2-Tetrachloroethane						0 / 3	12 - 15	6.7
1,1,2-Trichloroethane						0 / 3	12 - 15	6.7
1,1-Dichloroethane						0 / 3	12 - 15	6.7
1,1-Dichloroethene						0 / 3	12 - 15	6.7
1,2-Dichloroethane						0 / 3	12 - 15	6.7
1,2-Dichloroethene(total)						0 / 3	12 - 15	6.7
1,2-Dichloropropane						0 / 3	12 - 15	6.7
2-Butanone						0 / 3	12 - 15	6.7
2-Hexanone						0 / 3	12 - 15	6.7
4-Methyl-2-pentanone						0 / 3	12 - 15	6.7
Acetone						0 / 3	12 - 24	9.2
Benzene						0 / 3	12 - 15	6.7
Bromodichloromethane						0 / 3	12 - 15	6.7
Bromoform						0 / 3	12 - 15	6.7
Bromomethane						0 / 3	12 - 15	6.7
Carbon Disulfide						0 / 3	12 - 15	6.7
Carbon Tetrachloride						0 / 3	12 - 15	6.7
Chlorobenzene						0 / 3	12 - 15	6.7
Chloroethane						0 / 3	12 - 15	6.7
Chloroform						0 / 3	12 - 15	6.7
Chloromethane						0 / 3	12 - 15	6.7
cis-1,3-Dichloropropene						0 / 3	12 - 15	6.7
Dibromochloromethane						0 / 3	12 - 15	6.7
Ethylbenzene						0 / 3	12 - 15	6.7
Methylene Chloride						0 / 3	22 - 39	15
Styrene						0 / 3	12 - 15	6.7
Tetrachloroethene						0 / 3	12 - 15	6.7
Toluene						0 / 3	12 - 15	6.7
trans-1,3-Dichloropropene						0 / 3	12 - 15	6.7
Trichloroethene						0 / 3	12 - 15	6.7
Vinyl Chloride						0 / 3	12 - 15	6.7
Xylenes (total)						0 / 3	12 - 15	6.7
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	400 - 490	218
1,2-Dichlorobenzene						0 / 3	400 - 490	218
1,3-Dichlorobenzene						0 / 3	400 - 490	218
1,4-Dichlorobenzene						0 / 3	400 - 490	218
2,2'-oxybis(1-Chloropropane)						0 / 3	400 - 490	218
2,4,5-Trichlorophenol						0 / 3	1000 - 1200	533
2,4,6-Trichlorophenol						0 / 3	400 - 490	218
2,4-Dichlorophenol						0 / 3	400 - 490	218
2,4-Dimethylphenol						0 / 3	400 - 490	218
2,4-Dinitrophenol						0 / 3	1000 - 1200	533
2,4-Dinitrotoluene						0 / 3	400 - 490	218
2,6-Dinitrotoluene						0 / 3	400 - 490	218
2-Chloronaphthalene						0 / 3	400 - 490	218
2-Chlorophenol						0 / 3	400 - 490	218
2-Methylnaphthalene						0 / 3	400 - 490	218
2-Methylphenol						0 / 3	400 - 490	218
2-Nitroaniline						0 / 3	1000 - 1200	533
2-Nitrophenol						0 / 3	400 - 490	218
3,3'-Dichlorobenzidine						0 / 3	400 - 490	218
3-Nitroaniline						0 / 3	1000 - 1200	533
4,6-Dinitro-2-methylphenol						0 / 3	1000 - 1200	533
4-Bromophenyl-phenylether						0 / 3	400 - 490	218
4-Chloro-3-methylphenol						0 / 3	400 - 490	218
4-Chloroaniline						0 / 3	400 - 490	218
4-Chlorophenyl-phenyl ether						0 / 3	400 - 490	218

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TABLE 2-67
SEDIMENT DATA SUMMARY - STATION 8
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Methylphenol						0 / 3	400 - 490	218
4-Nitroaniline						0 / 3	1000 - 1200	533
4-Nitrophenol						0 / 3	1000 - 1200	533
Acenaphthene						0 / 3	400 - 490	218
Acenaphthylene	81	J	120	J	SD-08-02-FW	2 / 3	400	134
Anthracene	56	J	120	J	SD-08-02-FW	3 / 3	N/A	99
Benzo(a)anthracene	290	J	680		SD-08-02-FW	3 / 3	N/A	483
Benzo(a)pyrene	450		940		SD-08-02-FW	3 / 3	N/A	627
Benzo(b)fluoranthene	950		1900		SD-08-02-FW	3 / 3	N/A	1283
Benzo(g,h,i)perylene	260	J	700		SD-08-02-FW	3 / 3	N/A	413
Benzo(k)fluoranthene	960		2000		SD-08-02-FW	3 / 3	N/A	1353
bis(2-Chloroethoxy)methane						0 / 3	400 - 490	218
bis(2-Chloroethyl)ether						0 / 3	400 - 490	218
bis(2-Ethylhexyl)phthalate	84	J	260	J	SD-08-03-FW	3 / 3	N/A	165
Butylbenzylphthalate						0 / 3	400 - 490	218
Carbazole	63	J	110	J	SD-08-02-FW	2 / 3	420	128
Chrysene	450		1000		SD-08-02-FW	3 / 3	N/A	677
Di-n-butylphthalate						0 / 3	400 - 490	218
Di-n-octylphthalate						0 / 3	400 - 490	218
Dibenz(a,h)anthracene	60	J	160	J	SD-08-02-FW	3 / 3	N/A	93
Dibenzofuran	56	J	56	J	SD-08-02-FW	1 / 3	400 - 420	155
Diethylphthalate						0 / 3	400 - 490	218
Dimethylphthalate						0 / 3	400 - 490	218
Fluoranthene	520		1400		SD-08-02-FW	3 / 3	N/A	897
Fluorene	50	J	100	J	SD-08-02-FW	3 / 3	N/A	73
Hexachlorobenzene						0 / 3	400 - 490	218
Hexachlorobutadiene sv						0 / 3	400 - 490	218
Hexachlorocyclopentadiene						0 / 3	400 - 490	218
Hexachloroethane						0 / 3	400 - 490	218
Indeno(1,2,3-cd)pyrene	240	J	680		SD-08-02-FW	3 / 3	N/A	400
Isophorone						0 / 3	400 - 490	218
N-Nitroso-di-n-propylamine						0 / 3	400 - 490	218
N-nitrosodiphenylamine	58	J	58	J	SD-08-01-FW	1 / 3	400 - 490	168
Naphthalene	41	J	200	J	SD-08-02-FW	3 / 3	N/A	98
Nitrobenzene						0 / 3	400 - 490	218
Pentachlorophenol						0 / 3	1000 - 1200	533
Phenanthrene	280	J	610		SD-08-02-FW	3 / 3	N/A	477
Phenol						0 / 3	400 - 490	218
Pyrene	640	J	2000		SD-08-02-FW	3 / 3	N/A	1150
PCBs/Pesticides - ug/Kg								
4,4'-DDD	3.3	J	9.8		SD-08-01-FW	3 / 3	N/A	6.6
4,4'-DDE	3.5	J	4.2	J	SD-08-03-FW	3 / 3	N/A	3.9
4,4'-DDT	0.87	J	3	J	SD-08-01-FW	2 / 2	N/A	1.9
Aldrin						0 / 2	2.1 - 2.5	1.2
alpha-BHC	0.26	J	0.26	J	SD-08-02-FW	1 / 2	2.1	0.66
alpha-Chlordane	1.5	J	1.5	J	SD-08-03-FW	1 / 3	2.1 - 2.5	1.3
Aroclor 1016						0 / 2	41 - 49	23
Aroclor 1221						0 / 2	84 - 100	46
Aroclor 1232						0 / 2	41 - 49	23
Aroclor 1242						0 / 2	41 - 49	23
Aroclor 1248						0 / 2	41 - 49	23
Aroclor 1254						0 / 2	41 - 49	23
Aroclor 1260						0 / 2	41 - 49	23
beta-BHC						0 / 2	2.1 - 2.5	1.2
delta-BHC	0.32	J	0.32	J	SD-08-03-FW	1 / 3	2.1 - 2.5	0.87

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TABLE 2-67
SEDIMENT DATA SUMMARY - STATION 8
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	0.19	J	0.19	J	SD-08-02-FW	1 / 2	4.1	1.1
Endosulfan I						0 / 2	2.1 - 2.5	1.2
Endosulfan II	0.29	J	1.1	J	SD-08-02-FW	2 / 2	N/A	0.70
Endosulfan sulfate						0 / 2	4.1 - 4.9	2.3
Endrin	2.3	J	2.3	J	SD-08-02-FW	1 / 2	4.1	2.2
Endrin aldehyde	0.47	J	0.47	J	SD-08-02-FW	1 / 2	4.1	1.3
Endrin ketone	2.9	J	2.9	J	SD-08-02-FW	1 / 2	4.1	2.5
gamma-BHC (Lindane)						0 / 2	2.1 - 2.5	1.2
gamma-Chlordane	0.25	J	1.4	J	SD-08-03-FW	3 / 3	N/A	0.78
Heptachlor	0.13	J	0.13	J	SD-08-02-FW	1 / 2	2.1	0.59
Heptachlor epoxide	0.45	J	1.1	J	SD-08-02-FW	3 / 3	N/A	0.73
Methoxychlor						0 / 2	21 - 25	11.5
Toxaphene						0 / 2	210 - 250	115
Metals - mg/Kg								
Aluminum	4590	J	5950	J	SD-08-02-FW	3 / 3	N/A	5457
Antimony	0.74		1.6		SD-08-02-FW	3 / 3	N/A	1.0
Arsenic	10.8	J	28.9	J	SD-08-02-FW	3 / 3	N/A	19
Barium	15.7		21.2		SD-08-02-FW	3 / 3	N/A	19
Beryllium	0.25		0.32		SD-08-02-FW	2 / 3	0.19	0.22
Cadmium						0 / 3	0.6 - 1.8	0.62
Calcium	1630		2330		SD-08-02-FW	3 / 3	N/A	1957
Chromium	17.8	J	119	J	SD-08-02-FW	3 / 3	N/A	54
Cobalt	5.2		10.6		SD-08-02-FW	3 / 3	N/A	7.3
Copper	28.3	J	133	J	SD-08-02-FW	3 / 3	N/A	74
Cyanide						0 / 3	0.6 - 0.61	0.30
Iron	7110	J	23200	J	SD-08-02-FW	3 / 3	N/A	13237
Lead	20		70.7		SD-08-02-FW	3 / 3	N/A	43
Magnesium	1730	J	2180	J	SD-08-03-FW	3 / 3	N/A	2007
Manganese	99.5	J	228	J	SD-08-02-FW	3 / 3	N/A	161
Mercury	0.11	J	1	J	SD-08-02-FW	3 / 3	N/A	0.46
Nickel	7		20.2		SD-08-02-FW	3 / 3	N/A	12
Potassium	464	J	476	J	SD-08-03-FW	3 / 3	N/A	470
Selenium						0 / 3	0.67 - 0.9	0.39
Silver						0 / 3	0.27 - 0.32	0.15
Sodium						0 / 3	80.2 - 157	59
Thallium	1.1		1.7		SD-08-02-FW	3 / 3	N/A	1.4
Vanadium	11.6		17.5		SD-08-02-FW	3 / 3	N/A	15
Zinc	171	J	539	J	SD-08-02-FW	3 / 3	N/A	350
AVS-SEM - mg/Kg								
Cadmium	3.8		3.8		SD-08-01-FW	1 / 3	0.79 - 1.6	1.7
Copper	63		128		SD-08-01-FW	3 / 3	N/A	103
Lead	48		294		SD-08-01-FW	3 / 3	N/A	136
Mercury	0.010		0.020		SD-08-03-FW	2 / 3	0.004	0.011
Nickel	6.2	J	37	J	SD-08-03-FW	3 / 3	N/A	19
SEM/AVS Ratio	2.4		3.5		SD-08-01-FW	3 / 3	N/A	3.0
Sulfide	93	J	159	J	SD-08-01-FW	3 / 3	N/A	132
Zinc	508		899		SD-08-01-FW	3 / 3	N/A	649
Total Combustible Organics (mg/Kg)	7560		17900		SD-08-02-FW	2 / 3	117	8506

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-68
SEDIMENT DATA SUMMARY - STATION 9
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 10	12 - 16	6.6
1,1,2,2-Tetrachloroethane						0 / 10	12 - 16	6.6
1,1,2-Trichloroethane						0 / 10	12 - 16	6.6
1,1-Dichloroethane						0 / 10	12 - 16	6.6
1,1-Dichloroethene						0 / 10	12 - 16	6.6
1,2-Dichloroethane						0 / 10	12 - 16	6.6
1,2-Dichloroethene(total)						0 / 10	12 - 16	6.6
1,2-Dichloropropane						0 / 10	12 - 16	6.6
2-Butanone						0 / 10	12 - 16	6.6
2-Hexanone						0 / 10	12 - 16	6.6
4-Methyl-2-pentanone						0 / 10	12 - 16	6.6
Acetone						0 / 10	12 - 21	7.7
Benzene						0 / 10	12 - 16	6.6
Bromodichloromethane						0 / 10	12 - 16	6.6
Bromoform						0 / 10	12 - 16	6.6
Bromomethane						0 / 10	12 - 16	6.6
Carbon Disulfide						0 / 10	12 - 16	6.6
Carbon Tetrachloride						0 / 10	12 - 16	6.6
Chlorobenzene						0 / 10	12 - 16	6.6
Chloroethane						0 / 10	12 - 16	6.6
Chloroform						0 / 10	12 - 16	6.6
Chloromethane						0 / 10	12 - 16	6.6
cis-1,3-Dichloropropene						0 / 10	12 - 16	6.6
Dibromochloromethane						0 / 10	12 - 16	6.6
Ethylbenzene						0 / 10	12 - 16	6.6
Methylene Chloride						0 / 10	12 - 24	8.5
Styrene						0 / 10	12 - 16	6.6
Tetrachloroethene						0 / 10	12 - 16	6.6
Toluene						0 / 10	12 - 16	6.6
trans-1,3-Dichloropropene						0 / 10	12 - 16	6.6
Trichloroethene						0 / 10	12 - 16	6.6
Vinyl Chloride						0 / 10	12 - 16	6.6
Xylenes (total)						0 / 10	12 - 16	6.6
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 10	390 - 520	217
1,2-Dichlorobenzene						0 / 10	390 - 520	217
1,3-Dichlorobenzene						0 / 10	390 - 520	217
1,4-Dichlorobenzene						0 / 10	390 - 520	217
2,2'-oxybis(1-Chloropropane)						0 / 10	390 - 520	217
2,4,5-Trichlorophenol						0 / 10	980 - 1300	543
2,4,6-Trichlorophenol						0 / 10	390 - 520	217
2,4-Dichlorophenol						0 / 10	390 - 520	217
2,4-Dimethylphenol						0 / 10	390 - 520	217
2,4-Dinitrophenol						0 / 10	980 - 1300	543
2,4-Dinitrotoluene						0 / 10	390 - 520	217
2,6-Dinitrotoluene						0 / 10	390 - 520	217
2-Chloronaphthalene						0 / 10	390 - 520	217
2-Chlorophenol						0 / 10	390 - 520	217
2-Methylnaphthalene	220	J	220	J	SD-09-06-FW	1 / 10	390 - 520	219
2-Methylphenol						0 / 10	390 - 520	217
2-Nitroaniline						0 / 10	980 - 1300	543
2-Nitrophenol						0 / 10	390 - 520	217
3,3'-Dichlorobenzidine						0 / 10	390 - 520	217
3-Nitroaniline						0 / 10	980 - 1300	543
4,6-Dinitro-2-methylphenol						0 / 10	980 - 1300	543
4-Bromophenyl-phenylether						0 / 10	390 - 520	217
4-Chloro-3-methylphenol						0 / 10	390 - 520	217
4-Chloroaniline						0 / 10	390 - 520	217
4-Chlorophenyl-phenyl ether						0 / 10	390 - 520	217

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TABLE 2-68
SEDIMENT DATA SUMMARY - STATION 9
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Methylphenol						0 / 10	390 - 520	217
4-Nitroaniline						0 / 10	980 - 1300	543
4-Nitrophenol						0 / 10	980 - 1300	543
Acenaphthene	520		520		SD-09-06-FW	1 / 10	390 - 520	249
Acenaphthylene	82	J	82	J	SD-09-06-FW	1 / 10	390 - 520	205
Anthracene	930		930		SD-09-06-FW	1 / 10	390 - 520	290
Benzo(a)anthracene	40	J	1000		SD-09-06-FW	8 / 10	410 - 520	212
Benzo(a)pyrene	45	J	1100		SD-09-06-FW	8 / 10	410 - 520	209
Benzo(b)fluoranthene	76	J	2300		SD-09-06-FW	8 / 10	410 - 520	396
Benzo(g,h,i)perylene	44	J	290	J	SD-09-06-FW	2 / 10	390 - 520	210
Benzo(k)fluoranthene	69	J	2100		SD-09-06-FW	8 / 10	410 - 520	361
bis(2-Chloroethoxy)methane						0 / 10	390 - 520	217
bis(2-Chloroethyl)ether						0 / 10	390 - 520	217
bis(2-Ethylhexyl)phthalate	64	J	390	J	SD-09-07-FW	7 / 10	390 - 520	155
Butylbenzylphthalate						0 / 10	390 - 520	217
Carbazole	480		480		SD-09-06-FW	1 / 10	390 - 520	245
Chrysene	48	J	1400		SD-09-06-FW	8 / 10	410 - 520	252
Di-n-butylphthalate						0 / 10	390 - 520	217
Di-n-octylphthalate						0 / 10	390 - 520	217
Dibenz(a,h)anthracene	80	J	80	J	SD-09-06-FW	1 / 10	390 - 520	205
Dibenzofuran	500		500		SD-09-06-FW	1 / 10	390 - 520	247
Diethylphthalate						0 / 10	390 - 520	217
Dimethylphthalate						0 / 10	390 - 520	217
Fluoranthene	42	J	1800		SD-09-06-FW	9 / 10	410	338
Fluorene	45	J	810		SD-09-06-FW	2 / 10	390 - 520	262
Hexachlorobenzene						0 / 10	390 - 520	217
Hexachlorobutadiene sv						0 / 10	390 - 520	217
Hexachlorocyclopentadiene						0 / 10	390 - 520	217
Hexachloroethane						0 / 10	390 - 520	217
Indeno(1,2,3-cd)pyrene	21	J	370	J	SD-09-06-FW	4 / 10	390 - 520	188
Isophorone						0 / 10	390 - 520	217
N-Nitroso-di-n-propylamine						0 / 10	390 - 520	217
N-nitrosodiphenylamine						0 / 10	390 - 520	217
Naphthalene	250	J	250	J	SD-09-06-FW	1 / 10	390 - 520	222
Nitrobenzene						0 / 10	390 - 520	217
Pentachlorophenol						0 / 10	980 - 1300	543
Phenanthrene	62	J	1900		SD-09-06-FW	8 / 10	410 - 520	306
Phenol						0 / 10	390 - 520	217
Pyrene	52	J	2200		SD-09-06-FW	9 / 10	410	371
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.46	J	83		SD-09-07-FW	9 / 10	4.4	16
4,4'-DDE	0.089	J	27		SD-09-02-FW	9 / 10	3.9	7.6
4,4'-DDT	0.29	J	19		SD-09-07-FW	10 / 10	N/A	4.0
Aldrin	0.12	J	2	J	SD-09-02-FW	8 / 10	2.1 - 2.3	0.62
alpha-BHC	0.11	J	0.46	J	SD-09-07-FW	2 / 10	2 - 2.7	0.92
alpha-Chlordane	0.28	J	1.9	J	SD-09-07-FW	7 / 10	2 - 2.7	0.83
Aroclor 1016						0 / 10	39 - 52	22
Aroclor 1221						0 / 10	78 - 110	44
Aroclor 1232						0 / 10	39 - 52	22
Aroclor 1242						0 / 10	39 - 52	22
Aroclor 1248						0 / 10	39 - 52	22
Aroclor 1254						0 / 10	39 - 52	22
Aroclor 1260						0 / 10	39 - 52	22
beta-BHC	0.1	J	0.92	J	SD-09-07-FW	5 / 10	2 - 2.7	0.73
delta-BHC	0.08	J	0.85	J	SD-09-10-FW	2 / 10	2 - 2.7	0.98

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TABLE 2-68
SEDIMENT DATA SUMMARY - STATION 9
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	0.4	J	7		SD-09-02-FW	10 / 10	N/A	2.5
Endosulfan I	0.11	J	0.51	J	SD-09-07-FW	2 / 10	2 - 2.7	0.93
Endosulfan II	0.24	J	0.34	J	SD-09-05-FW	2 / 10	3.9 - 5.2	1.8
Endosulfan sulfate						0 / 10	3.9 - 5.2	2.2
Endrin	0.1	J	1.4	J	SD-09-07-FW	6 / 10	3.9 - 5.2	1.1
Endrin aldehyde	0.9	J	0.9	J	SD-09-02-FW	1 / 10	3.9 - 5.2	2.0
Endrin ketone						0 / 10	3.9 - 5.2	2.2
gamma-BHC (Lindane)						0 / 10	2 - 2.7	1.1
gamma-Chlordane	0.15	J	2.4		SD-09-07-FW	7 / 10	2 - 2.1	0.76
Heptachlor	0.067	J	0.34	J	SD-09-05-FW	5 / 10	2 - 2.3	0.65
Heptachlor epoxide						0 / 10	2 - 2.7	1.1
Methoxychlor						0 / 10	2 - 27	10
Toxaphene						0 / 10	200 - 270	112
Metals - mg/Kg								
Aluminum	2330	J	7270	J	SD-09-08-FW	10 / 10	N/A	4247
Antimony	0.64		1.3		SD-09-08-FW	8 / 10	0.51 - 0.57	0.81
Arsenic	18.1	J	48.5	J	SD-09-02-FW	10 / 10	N/A	29
Barium	6		73.9		SD-09-10-FW	10 / 10	N/A	21
Beryllium	0.14		0.24		SD-09-03-FW	7 / 10	0.081 - 0.26	0.16
Cadmium	0.19		1.2	J	SD-09-10-FW	2 / 10	0.5 - 1.5	0.49
Calcium	569		2590		SD-09-02-FW	10 / 10	N/A	1418
Chromium	9.3	J	91.8	J	SD-09-01-FW	10 / 10	N/A	45
Cobalt	2.7		13.3		SD-09-10-FW	10 / 10	N/A	5.9
Copper	4.2	J	102	J	SD-09-01-FW	10 / 10	N/A	47
Cyanide						0 / 8	0.49 - 0.78	0.29
Iron	4910	J	30600		SD-09-10-FW	10 / 10	N/A	10919
Lead	2.4		86.8		SD-09-01-FW	10 / 10	N/A	30
Magnesium	922	J	4560	J	SD-09-08-FW	10 / 10	N/A	1970
Manganese	43.2	J	2640	J	SD-09-10-FW	10 / 10	N/A	365
Mercury	0.19	J	0.68	J	SD-09-07-FW	7 / 10	0.049 - 0.06	0.26
Nickel	5.7		12.5		SD-09-09-FW	10 / 10	N/A	8.0
Potassium	236	J	814	J	SD-09-03-FW	10 / 10	N/A	506
Selenium	0.62		0.62		SD-09-10-FW	1 / 10	0.45 - 2.6	0.43
Silver						0 / 10	0.22 - 0.43	0.15
Sodium						0 / 10	54.9 - 172	53
Thallium	0.68		2.4		SD-09-10-FW	6 / 10	0.52 - 1	0.92
Vanadium	6.5		19.3		SD-09-08-FW	10 / 10	N/A	11
Zinc	57.1	J	479	J	SD-09-10-FW	10 / 10	N/A	156
AVS-SEM - mg/Kg								
Cadmium	0.36	J	0.36	J	SD-09-10-FW	1 / 10	0.13 - 1.3	0.23
Copper	19		117		SD-09-07-FW	10 / 10	N/A	47
Lead	11		60		SD-09-07-FW	10 / 10	N/A	29
Mercury	0.010		0.030		SD-09-09-FW	5 / 10	0.003 - 0.004	0.0088
Nickel	2.7	J	120		SD-09-10-FW	8 / 10	2.8 - 3.3	33
SEM/AVS Ratio	0		91		SD-09-10-FW	10 / 10	N/A	10
Sulfide	2.6		562	J	SD-09-03-FW	9 / 10	1.605	164
Zinc	50		269		SD-09-10-FW	10 / 10	N/A	121
Total Combustible Organics (mg/Kg)	3860		3860		SD-09-10-FW	1 / 2	117	1959
Total Organic Carbon (mg/Kg)	1050		46200		SD-09-02-FW	5 / 8	114 - 121	8735

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-69
SEDIMENT DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	37 - 44	20
1,1,1-Trichloroethane						0 / 4	20 - 330	81
1,1,2,2-Tetrachloroethane						0 / 4	20 - 110	32
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	35	18
1,1,2-Trichloroethane						0 / 4	20 - 110	32
1,1-Dichloroethane						0 / 4	20 - 330	81
1,1-Dichloroethene						0 / 4	20 - 330	81
1,2,4-Trichlorobenzene						0 / 1	35	18
1,2-Dibromo-3-chloropropane						0 / 1	35	18
1,2-Dibromoethane						0 / 1	35	18
1,2-Dichlorobenzene						0 / 1	35	18
1,2-Dichloroethane						0 / 4	20 - 330	81
1,2-Dichloroethene(total)						0 / 1	20	10
1,2-Dichloropropane						0 / 2	20 - 35	14
1,3-Dichlorobenzene						0 / 1	35	18
1,4-Dichlorobenzene						0 / 1	35	18
2-Butanone						0 / 2	20 - 35	14
2-Hexanone						0 / 2	20 - 35	14
4-Methyl-2-pentanone						0 / 2	20 - 35	14
Acetone						0 / 2	35 - 250	87
Benzene	21	J	21	J	SD-10-02-ME	1 / 4	20 - 44	17
Bromodichloromethane						0 / 2	20 - 35	14
Bromoform						0 / 2	20 - 35	14
Bromomethane						0 / 2	20 - 35	14
Carbon Disulfide	29	J	29	J	SD-10-02-TR	1 / 2	20 - 35	20
Carbon Tetrachloride						0 / 2	20 - 35	14
Chlorobenzene						0 / 2	20 - 35	14
Chloroethane						0 / 2	20 - 35	14
Chloroform						0 / 4	20 - 110	32
Chloromethane						0 / 2	20 - 35	14
cis-1,2-Dichloroethene	64	J	64	J	SD-10-01-ME	1 / 3	35 - 110	43
cis-1,3-Dichloropropene						0 / 2	20 - 35	14
Cyclohexane						0 / 1	35	18
Dibromochloromethane						0 / 2	20 - 35	14
Dichlorodifluoromethane						0 / 1	35	18
Ethylbenzene						0 / 4	20 - 44	17
Isopropylbenzene						0 / 1	35	18
Methyl Acetate						0 / 1	35	18
Methyl tert-Butyl Ether						0 / 1	35	18
Methylcyclohexane						0 / 1	35	18
Methylene chloride						0 / 4	21 - 330	81
Naphthalene						0 / 2	278 - 330	148
Styrene						0 / 2	20 - 35	14
Tetrachloroethene						0 / 4	20 - 330	81
Toluene						0 / 2	20 - 35	14
trans-1,2-Dichloroethene						0 / 3	35 - 330	104
trans-1,3-Dichloropropene						0 / 2	20 - 35	14
Trichloroethene	60	J	60	J	SD-10-02-ME	1 / 4	20 - 110	35
Trichlorofluoromethane						0 / 1	35	18
Vinyl chloride						0 / 4	20 - 330	81
Xylene, m/p-						0 / 3	35 - 110	39
Xylene, o-						0 / 3	35 - 110	39
Xylenes (total)						0 / 1	20	10
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	540	270
1,2,4-Trichlorobenzene sv						0 / 1	660	330
1,2-Dichlorobenzene						0 / 1	660	330
1,3-Dichlorobenzene						0 / 1	660	330
1,4-Dichlorobenzene						0 / 1	660	330
2,2'-oxybis(1-Chloropropane)						0 / 2	540 - 660	300
2,4,5-Trichlorophenol						0 / 2	1300 - 1600	725
2,4,6-Trichlorophenol						0 / 2	540 - 660	300
2,4-Dichlorophenol						0 / 2	540 - 660	300
2,4-Dimethylphenol						0 / 2	540 - 660	300
2,4-Dinitrophenol						0 / 2	1300 - 1600	725
2,4-Dinitrotoluene						0 / 2	540 - 660	300
2,6-Dinitrotoluene						0 / 2	540 - 660	300
2-Chloronaphthalene						0 / 2	540 - 660	300
2-Chlorophenol						0 / 2	540 - 660	300
2-Methylnaphthalene	33	J	33	J	SD-10-01-ME	1 / 4	10 - 660	160
2-Methylphenol						0 / 2	540 - 660	300
2-Nitroaniline						0 / 2	1300 - 1600	725
2-Nitrophenol						0 / 2	540 - 660	300
3,3'-Dichlorobenzidine						0 / 2	540 - 660	300
3+4-Methylphenols						0 / 1	540	270
3-Nitroaniline						0 / 2	540 - 1600	535
4,6-Dinitro-2-methylphenol						0 / 2	1300 - 1600	725
4-Bromophenyl-phenylether						0 / 2	540 - 660	300
4-Chloro-3-methylphenol						0 / 2	540 - 660	300
4-Chloroaniline						0 / 2	540 - 660	300
4-Chlorophenyl-phenyl ether						0 / 2	540 - 660	300
4-Methylphenol						0 / 1	660	330
4-Nitroaniline						0 / 2	1300 - 1600	725
4-Nitrophenol						0 / 2	1300 - 1600	725

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TABLE 2-69
SEDIMENT DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Acenaphthene	13		29	J	SD-10-01-ME	2 / 4	10 - 660	161
Acenaphthylene	13	J	20	J	SD-10-01-ME	2 / 4	10 - 660	158
Acetophenone						0 / 1	540	270
Anthracene	49	J	96.5	J	SD-10-01-ME	2 / 4	67 - 660	186
Atrazine						0 / 1	540	270
Benzaldehyde						0 / 1	540	270
Benzo(a)anthracene	210		580		SD-10-01-ME	2 / 4	67 - 660	348
Benzo(a)pyrene	250		620		SD-10-01-ME	2 / 4	67 - 660	368
Benzo(b)fluoranthene	290	J	965	J	SD-10-01-ME	4 / 6	67 - 660	459
Benzo(g,h,i)perylene	200		365		SD-10-01-ME	2 / 4	67 - 660	291
Benzo(k)fluoranthene	220	J	550	J	SD-10-02-FW	4 / 6	67 - 660	362
bis(2-Chloroethoxy)methane						0 / 2	540 - 660	300
bis(2-Chloroethyl)ether						0 / 2	540 - 660	300
bis(2-Ethylhexyl)phthalate	120	J	730	J	SD-10-02-FW	3 / 4	540	433
Butylbenzylphthalate						0 / 2	540 - 660	300
Caprolactam						0 / 1	540	270
Carbazole						0 / 2	540 - 660	300
Chrysene	380		650		SD-10-01-ME	2 / 4	67 - 660	408
Dibenz(a,h)anthracene	69		125		SD-10-01-ME	2 / 4	67 - 660	199
Dibenzofuran						0 / 2	540 - 660	300
Diethylphthalate						0 / 2	540 - 660	300
Dimethylphthalate						0 / 2	540 - 660	300
Di-n-butylphthalate						0 / 2	540 - 660	300
Di-n-octylphthalate						0 / 2	540 - 660	300
Fluoranthene	85	J	1950	J	SD-10-01-ME	5 / 6	67 - 540	586
Fluorene	72	J	115	J	SD-10-01-ME	2 / 4	10 - 660	197
Hexachlorobenzene						0 / 2	540 - 660	300
Hexachlorobutadiene sv						0 / 2	540 - 660	300
Hexachlorocyclopentadiene						0 / 2	540 - 660	300
Hexachloroethane						0 / 2	540 - 660	300
Indeno(1,2,3-cd)pyrene	190		405		SD-10-01-ME	2 / 4	67 - 660	299
Isophorone						0 / 2	540 - 660	300
Naphthalene	26	J	71	J	SD-10-01-ME	2 / 4	67 - 660	174
Nitrobenzene						0 / 2	540 - 660	300
N-Nitroso-di-n-propylamine						0 / 2	540 - 660	300
N-nitrosodiphenylamine	400	J	560	J	SD-10-01-FW	3 / 4	540	420
Pentachlorophenol						0 / 2	1300 - 1600	725
Phenanthrene	210		690	J	SD-10-01-ME	2 / 4	67 - 660	375
Phenol						0 / 2	540 - 660	300
Pyrene	99	J	1650	J	SD-10-01-ME	5 / 6	67 - 540	569
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.35 - 3.4	0.91
4,4'-DDD	17		179	J	SD-10-01-ME	4 / 6	0.35 - 6.6	74
4,4'-DDE	0.85	J	160	J	SD-10-01-ME	5 / 6	0.35 - 4.2	54
4,4'-DDT	0.93	J	3.5	J	SD-10-01-ME	4 / 6	0.35 - 4.2	1.9
Aldrin	18	J	18	J	SD-10-01-ME	1 / 4	0.17 - 3.4	5.2

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SEDIMENT DATA SUMMARY - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
alpha-BHC						0 / 4	0.17 - 3.4	0.9
alpha-Chlordane	0.92	J	29.5	J	SD-10-01-ME	5 / 6	0.17 - 2.1	9
Aroclor 1016						0 / 4	3.3 - 66	14
Aroclor 1221						0 / 4	6.6 - 130	28
Aroclor 1232						0 / 4	3.3 - 66	14
Aroclor 1242						0 / 4	3.3 - 66	14
Aroclor 1248	47	J	560	J	SD-10-01-ME	2 / 4	3.4 - 66	165
Aroclor 1254						0 / 4	3.3 - 66	14
Aroclor 1260	44		320	J	SD-10-01-ME	2 / 4	3.4 - 66	105
beta-BHC						0 / 4	0.17 - 3.4	0.92
delta-BHC	0.14	J	0.14	J	SD-10-03-FW	1 / 4	0.17 - 2.1	0.53
Dieldrin	0.55	J	14	J	SD-10-01-ME	4 / 6	0.35 - 4.2	4.1
Endosulfan I						0 / 4	0.17 - 3.4	0.92
Endosulfan II						0 / 4	0.35 - 6.6	1.8
Endosulfan Sulfate						0 / 4	0.35 - 6.6	1.8
Endrin	0.61	J	5.8	J	SD-10-01-ME	2 / 4	0.35 - 6.6	3.0
Endrin Aldehyde	1.7	J	11.7	J	SD-10-01-ME	2 / 4	0.35 - 6.6	4.7
Endrin Ketone						0 / 4	0.35 - 6.6	1.8
gamma-BHC (Lindane)						0 / 4	0.17 - 3.4	0.92
gamma-Chlordane	0.25	J	20.5	J	SD-10-01-ME	5 / 6	0.17 - 2.1	8.0
Heptachlor						0 / 4	0.17 - 3.4	0.92
Heptachlor Epoxide	0.54	J	1.575	J	SD-10-01-ME	2 / 4	0.17 - 3.4	1.2
Methoxychlor						0 / 4	1.7 - 34	9.2
Toxaphene						0 / 4	17 - 340	92
Metals - mg/Kg								
Aluminum	7690		29300	J	SD-10-02-FW	6 / 6	3.5 - 9.14	23990
Antimony	3.1		39.7		SD-10-02-TR	6 / 6	0.26 - 0.74	14.6
Arsenic	187	J	2180		SD-10-02-TR	6 / 6	0.22 - 1	863
Barium	32.4		112.6		SD-10-01-ME	6 / 6	0.018 - 0.4	69
Beryllium	0.48		2.05		SD-10-01-ME	6 / 6	0.027 - 0.2	1.5
Cadmium	5.9		21.15	J	SD-10-01-FW	6 / 6	0.037 - 0.6	13
Calcium	5800	J	11250	J	SD-10-01-FW	6 / 6	1.6 - 2.14	9318
Chromium	114	J	3435		SD-10-01-ME	6 / 6	0.055 - 1	1376
Cobalt	11.2		40.3		SD-10-01-ME	6 / 6	0.36 - 0.48	22
Copper	298		2315		SD-10-01-ME	6 / 6	0.082 - 0.44	1707
Cyanide						0 / 1	0.91	0.46
Iron	10800		51650		SD-10-01-ME	6 / 6	0.57 - 1.4	33225
Lead	130	J	881		SD-10-01-ME	6 / 6	0.26 - 0.6	590
Magnesium	1490	J	2270		SD-10-01-ME	6 / 6	0.82 - 15.18	1838
Manganese	388	J	727		SD-10-02-TR	6 / 6	0.018 - 0.24	532
Mercury	0.19	J	24.2		SD-10-02-ME	6 / 6	0.0049 - 0.02	11
Nickel	13.3		45.75		SD-10-01-ME	6 / 6	0.15 - 0.8	27
Potassium	256		737		SD-10-01-ME	5 / 6	2.7 - 345	434
Selenium	1.9	J	11.5		SD-10-02-ME	6 / 6	0.4 - 1	6.8
Silver	0.395	J	0.57	J	SD-10-02-ME	2 / 4	0.0094 - 1	0.44
Sodium	282		1300		SD-10-02-TR	5 / 6	0.22 - 642	687
Thallium						0 / 4	0.042 - 1.7	0.68
Vanadium	21.4		76.95		SD-10-01-ME	6 / 6	0.073 - 0.64	53
Zinc	1410	J	4020		SD-10-01-ME	6 / 6	0.16 - 1.7	2191
AVS-SEM - mg/Kg								
Arsenic	88	J	339	J	SD-10-02-ME	2 / 2	N/A	214
Cadmium	8.3		27	J	SD-10-01-FW	5 / 6	5.6	12
Copper	4.0	J	1150		SD-10-02-FW	6 / 6	N/A	491
Lead	139		906		SD-10-02-FW	6 / 6	N/A	509
Mercury	1.2	J	1.2	J	SD-10-02-TR	1 / 4	0.01 - 0.02	0.31
Nickel	13	J	109		SD-10-03-FW	4 / 6	113 - 193	54
SEM/AVS Ratio	0.35		7.1		SD-10-02-TR	6 / 6	N/A	2.1
Sulfide	165		6853		SD-10-01-FW	6 / 6	N/A	2141
Zinc	630	J	3645		SD-10-01-FW	6 / 6	N/A	2005
Total Combustible Organics (mg/Kg)	97300		465000	J	SD-10-01-ME	5 / 5	2000	303360
Total Organic Carbon (mg/Kg)	680000		680000		SD-10-02-TR	1 / 1	250	680000

N/A = Not Applicable or Not Available
J = Estimated Value

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WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	23	12
1,1,1-Trichloroethane						0 / 3	27 - 171	38
1,1,2,2-Tetrachloroethane						0 / 3	27 - 57	19
1,1,2-Trichloroethane						0 / 3	27 - 57	19
1,1-Dichloroethane						0 / 3	27 - 171	38
1,1-Dichloroethene						0 / 3	27 - 171	38
1,2-Dichloroethane						0 / 3	27 - 171	38
1,2-Dichloroethene(total)						0 / 2	27 - 28	14
1,2-Dichloropropane						0 / 2	27 - 28	14
2-Butanone	120	J	200	J	SD-11-02-FW	2 / 3	28	111
2-Hexanone						0 / 2	27 - 28	14
4-Methyl-2-pentanone						0 / 2	27 - 28	14
Acetone						0 / 2	260 - 430	173
Benzene						0 / 3	23 - 28	13
Bromodichloromethane						0 / 2	27 - 28	14
Bromoform						0 / 2	27 - 28	14
Bromomethane						0 / 2	27 - 28	14
Carbon Disulfide						0 / 2	27 - 28	14
Carbon Tetrachloride						0 / 2	27 - 28	14
Chlorobenzene						0 / 2	27 - 28	14
Chloroethane						0 / 2	27 - 28	14
Chloroform						0 / 3	27 - 154	35
Chloromethane						0 / 2	27 - 28	14
cis-1,2-Dichloroethene	170	J	170	J	SD-11-01-ME	1 / 1	57	170
cis-1,3-Dichloropropene						0 / 2	27 - 28	14
Dibromochloromethane						0 / 2	27 - 28	14
Ethylbenzene						0 / 3	23 - 28	13
Methylene chloride						0 / 3	27 - 171	40
Naphthalene						0 / 1	171	86
Styrene						0 / 2	27 - 28	14
Tetrachloroethene						0 / 3	27 - 171	38
Toluene						0 / 2	27 - 28	14
trans-1,2-Dichloroethene	387		387		SD-11-01-ME	1 / 1	171	387
trans-1,3-Dichloropropene						0 / 2	27 - 28	14
Trichloroethene						0 / 3	27 - 103	26
Vinyl chloride	255	J	255	J	SD-11-01-ME	1 / 3	27 - 255	94
Xylene, m/p-						0 / 1	57	29
Xylene, o-						0 / 1	57	29
Xylenes (total)						0 / 2	27 - 28	14
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 2	890 - 910	450
1,2-Dichlorobenzene						0 / 2	890 - 910	450
1,3-Dichlorobenzene						0 / 2	890 - 910	450
1,4-Dichlorobenzene						0 / 2	890 - 910	450
2,2'-oxybis(1-Chloropropane)						0 / 2	890 - 910	450
2,4,5-Trichlorophenol						0 / 2	2200 - 2300	1125
2,4,6-Trichlorophenol						0 / 2	890 - 910	450
2,4-Dichlorophenol						0 / 2	890 - 910	450
2,4-Dimethylphenol						0 / 2	890 - 910	450
2,4-Dinitrophenol						0 / 2	2200 - 2300	1125
2,4-Dinitrotoluene						0 / 2	890 - 910	450
2,6-Dinitrotoluene						0 / 2	890 - 910	450
2-Chloronaphthalene						0 / 2	890 - 910	450
2-Chlorophenol						0 / 2	890 - 910	450
2-Methylnaphthalene	16	J	16	J	SD-11-01-ME	1 / 3	1 - 910	305
2-Methylphenol						0 / 2	890 - 910	450
2-Nitroaniline						0 / 2	2200 - 2300	1125
2-Nitrophenol						0 / 2	890 - 910	450
3,3'-Dichlorobenzidine						0 / 2	890 - 910	450
3-Nitroaniline						0 / 2	2200 - 2300	1125

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WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4,6-Dinitro-2-methylphenol						0 / 2	2200 - 2300	1125
4-Bromophenyl-phenylether						0 / 2	890 - 910	450
4-Chloro-3-methylphenol						0 / 2	890 - 910	450
4-Chloroaniline						0 / 2	890 - 910	450
4-Chlorophenyl-phenyl ether						0 / 2	890 - 910	450
4-Methylphenol						0 / 2	890 - 910	450
4-Nitroaniline						0 / 2	2200 - 2300	1125
4-Nitrophenol						0 / 2	2200 - 2300	1125
Acenaphthene	8	J	8	J	SD-11-01-ME	1 / 3	1 - 910	303
Acenaphthylene	9	J	9	J	SD-11-01-ME	1 / 3	67 - 910	303
Anthracene	54	J	54	J	SD-11-01-ME	1 / 3	67 - 910	318
Benzo(a)anthracene	120	J	410		SD-11-01-ME	3 / 4	67 - 890	321
Benzo(a)pyrene	220	J	520		SD-11-01-ME	2 / 4	67 - 910	410
Benzo(b)fluoranthene	120	J	870	J	SD-11-02-FW	4 / 4	67	530
Benzo(g,h,i)perylene	260	J	300		SD-11-01-ME	2 / 4	67 - 910	365
Benzo(k)fluoranthene	110	J	840	J	SD-11-02-FW	4 / 4	67	500
bis(2-Chloroethoxy)methane						0 / 2	890 - 910	450
bis(2-Chloroethyl)ether						0 / 2	890 - 910	450
bis(2-Ethylhexyl)phthalate	140	J	8100	J	SD-11-02-FW	3 / 3	N/A	2897
Butylbenzylphthalate						0 / 2	890 - 910	450
Carbazole						0 / 2	890 - 910	450
Chrysene	180	J	670		SD-11-01-ME	3 / 4	67 - 890	424
Dibenz(a,h)anthracene	99		99		SD-11-01-ME	1 / 3	67 - 910	333
Dibenzofuran						0 / 2	890 - 910	450
Diethylphthalate						0 / 2	890 - 910	450
Dimethylphthalate						0 / 2	890 - 910	450
Di-n-butylphthalate						0 / 2	890 - 910	450
Di-n-octylphthalate						0 / 2	890 - 910	450
Fluoranthene	300	J	1000		SD-11-01-ME	3 / 4	67 - 890	614
Fluorene	57	J	57	J	SD-11-01-ME	1 / 3	1 - 910	319
Hexachlorobenzene						0 / 2	890 - 910	450
Hexachlorobutadiene sv						0 / 2	890 - 910	450
Hexachlorocyclopentadiene						0 / 2	890 - 910	450
Hexachloroethane						0 / 2	890 - 910	450
Indeno(1,2,3-cd)pyrene	270	J	360		SD-11-01-ME	2 / 4	67 - 910	383
Isophorone						0 / 2	890 - 910	450
Naphthalene	32	J	32	J	SD-11-01-ME	1 / 3	1 - 910	311
Nitrobenzene						0 / 2	890 - 910	450
N-Nitroso-di-n-propylamine						0 / 2	890 - 910	450
N-nitrosodiphenylamine	410	J	540	J	SD-11-02-FW	2 / 3	910	468
Pentachlorophenol						0 / 2	2200 - 2300	1125
Phenanthrene	120	J	260		SD-11-01-ME	3 / 4	67 - 890	264
Phenol						0 / 2	890 - 910	450
Pyrene	100	J	950		SD-11-01-ME	4 / 4	67	480
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	0.33	0.17
4,4'-DDD	45	J	45	J	SD-11-01-ME	1 / 3	0.33 - 9.2	18
4,4'-DDE	0.76	J	15	J	SD-11-01-ME	4 / 4	0.33	6.7
4,4'-DDT	0.5	J	1.9	J	SD-11-01-ME	4 / 4	0.33	1.1
Aldrin	0.59	J	0.59	J	SD-11-03-FW	1 / 3	0.16 - 4.6	1.0
alpha-BHC						0 / 3	0.16 - 4.7	1.6
alpha-Chlordane	0.62	J	8.1	J	SD-11-01-ME	3 / 4	0.16 - 4.6	3.4
Aroclor 1016						0 / 3	3.3 - 92	31
Aroclor 1221						0 / 3	6.5 - 190	63
Aroclor 1232						0 / 3	3.3 - 92	31
Aroclor 1242						0 / 3	3.3 - 92	31
Aroclor 1248	180	J	180	J	SD-11-01-ME	1 / 3	3.3 - 92	90
Aroclor 1254						0 / 3	3.3 - 92	31
Aroclor 1260	17	J	230		SD-11-01-ME	3 / 4	3.3 - 92	89
beta-BHC						0 / 3	0.16 - 4.7	1.6

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SEDIMENT DATA SUMMARY - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC						0 / 3	0.16 - 4.7	1.6
Dieldrin	1.4	J	1.4	J	SD-11-01-ME	1 / 3	0.33 - 9.2	3.5
Endosulfan I	0.44	J	0.44	J	SD-11-01-ME	1 / 3	0.16 - 4.7	1.7
Endosulfan II	0.51	J	0.51	J	SD-11-01-ME	1 / 3	0.33 - 9.2	3.2
Endosulfan Sulfate	0.72	J	0.72	J	SD-11-01-ME	1 / 3	0.33 - 9.2	3.3
Endrin	0.69	J	0.69	J	SD-11-01-ME	1 / 3	0.33 - 9.2	3.2
Endrin Aldehyde	1.7	J	1.7	J	SD-11-01-ME	1 / 3	0.33 - 9.2	3.6
Endrin Ketone						0 / 3	0.33 - 9.2	3.1
gamma-BHC (Lindane)						0 / 3	0.16 - 4.7	1.6
gamma-Chlordane	0.34	J	5.6	J	SD-11-01-ME	4 / 4	0.16	2.3
Heptachlor						0 / 3	0.16 - 4.7	1.6
Heptachlor Epoxide						0 / 3	0.16 - 4.7	1.6
Methoxychlor						0 / 3	1.6 - 47	16
Toxaphene						0 / 3	16 - 470	158
Metals - mg/Kg								
Aluminum	5090		14800		SD-11-01-FW	4 / 4	3.5	10673
Antimony	1.2		8.4		SD-11-01-FW	3 / 4	0.27 - 1.5	3.3
Arsenic	121		874	J	SD-11-01-FW	4 / 4	0.22	434
Barium	24.6		149		SD-11-01-ME	4 / 4	0.018	67
Beryllium	0.38		1.1		SD-11-01-FW	4 / 4	0.028	0.74
Cadmium	3.3		9.5		SD-11-01-ME	4 / 4	0.35	6.2
Calcium	1870	J	5800		SD-11-01-ME	4 / 4	1.7	4013
Chromium	303	J	900	J	SD-11-02-FW	4 / 4	0.055	578
Cobalt	8.1		25.3	J	SD-11-01-ME	4 / 4	0.38	17
Copper	172		619		SD-11-01-FW	4 / 4	0.083	369
Cyanide						0 / 3	0.97 - 2	0.68
Iron	23800		49900		SD-11-01-FW	4 / 4	0.57	35300
Lead	100	J	606	J	SD-11-01-ME	4 / 4	0.27	250
Magnesium	561		2980		SD-11-01-ME	4 / 4	3.5	1494
Manganese	139	J	1630	J	SD-11-03-FW	4 / 4	0.018	680
Mercury	1.1		4.5		SD-11-01-FW	4 / 4	0.0051	2.8
Nickel	9.3		32.8	J	SD-11-01-ME	4 / 4	0.15	17
Potassium	233		956	J	SD-11-01-ME	4 / 4	2.7	513
Selenium	2.4		4.4		SD-11-01-FW	4 / 4	0.053	3.1
Silver	0.92	J	0.92	J	SD-11-01-ME	1 / 4	0.01 - 0.85	0.49
Sodium	211		486		SD-11-03-FW	4 / 4	0.22	387
Thallium						0 / 4	0.039 - 2	0.68
Vanadium	16.3		58.8		SD-11-01-ME	4 / 4	0.074	32
Zinc	830	J	2850	J	SD-11-01-FW	4 / 4	0.17	1823
AVS-SEM - mg/Kg								
Arsenic	223	J	223	J	SD-11-01-ME	1 / 1	N/A	223
Cadmium	1.7		30		SD-11-01-FW	3 / 4	11.2	14
Copper	75		1270		SD-11-02-FW	4 / 4	N/A	440
Lead	59	J	660		SD-11-02-FW	4 / 4	N/A	284
Mercury						0 / 4	0.01 - 10.03	1.3
Nickel	26	J	26	J	SD-11-01-ME	1 / 4	10.8 - 68.9	20
SEM/AVS Ratio	0.13		1.9		SD-11-01-FW	4 / 4	N/A	1.1
Sulfide	469	J	26964		SD-11-02-FW	4 / 4	N/A	7775
Zinc	849		11800		SD-11-01-FW	4 / 4	N/A	4906
Total Combustible Organics	36700		387000	J	SD-11-01-ME	4 / 4	2000	148650

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-71
SEDIMENT DATA SUMMARY - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	16 - 41	14
1,1,1-Trichloroethane						0 / 4	22 - 309	68
1,1,2,2-Tetrachloroethane						0 / 3	22 - 103	28
1,1,2-Trichloroethane						0 / 3	22 - 103	28
1,1-Dichloroethane						0 / 3	22 - 309	76
1,1-Dichloroethene						0 / 3	22 - 309	76
1,2-Dichloroethane						0 / 3	22 - 309	76
1,2-Dichloroethene(total)						0 / 1	22	11
1,2-Dichloropropane						0 / 1	22	11
2-Butanone	87	J	87	J	SD-12-02-FW	1 / 2	22	49
2-Hexanone						0 / 1	22	11
4-Methyl-2-pentanone						0 / 1	22	11
Acetone	370	J	370	J	SD-12-03-TR	1 / 2	56 - 89	199
Benzene	9	J	9	J	SD-12-03-ME	1 / 3	16 - 41	14
Bromodichloromethane						0 / 1	22	11
Bromoform						0 / 1	22	11
Bromomethane						0 / 1	22	11
Carbon Disulfide						0 / 1	22	11
Carbon Tetrachloride						0 / 1	22	11
Chlorobenzene						0 / 1	22	11
Chloroethane						0 / 1	22	11
Chloroform						0 / 3	22 - 103	28
Chloromethane						0 / 1	22	11
cis-1,2-Dichloroethene	25	J	417	J	SD-12-01-ME	2 / 2	41 - 103	221
cis-1,3-Dichloropropene						0 / 1	22	11
Dibromochloromethane						0 / 1	22	11
Ethylbenzene						0 / 3	16 - 41	13
Methylene Chloride						0 / 4	22 - 309	68
Naphthalene						0 / 2	124 - 309	108
Styrene						0 / 1	22	11
Tetrachloroethene						0 / 3	22 - 309	76
Toluene						0 / 1	22	11
trans-1,2-Dichloroethene						0 / 2	124 - 309	108
trans-1,3-Dichloropropene						0 / 1	22	11
Trichloroethene	53	J	53	J	SD-12-01-ME	1 / 3	22 - 103	28
Vinyl Chloride						0 / 3	22 - 309	76
Xylene, m/p-						0 / 2	41 - 103	36
Xylene, o-						0 / 2	41 - 103	36
Xylenes (total)						0 / 1	22	11
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	390	195
1,2,4-Trichlorobenzene sv						0 / 1	730	365
1,2-Dichlorobenzene						0 / 1	730	365
1,3-Dichlorobenzene						0 / 1	730	365
1,4-Dichlorobenzene						0 / 1	730	365
2,2'-oxybis(1-Chloropropane)						0 / 2	390 - 730	280
2,4,5-Trichlorophenol						0 / 2	980 - 1800	695
2,4,6-Trichlorophenol						0 / 2	390 - 730	280
2,4-Dichlorophenol						0 / 2	390 - 730	280
2,4-Dimethylphenol						0 / 2	390 - 730	280
2,4-Dinitrophenol						0 / 2	980 - 1800	695
2,4-Dinitrotoluene						0 / 2	390 - 730	280
2,6-Dinitrotoluene						0 / 2	390 - 730	280
2-Chloronaphthalene						0 / 2	390 - 730	280
2-Chlorophenol						0 / 2	390 - 730	280
2-Methylnaphthalene	13	J	25	J	SD-12-03-ME	2 / 4	1 - 730	150
2-Methylphenol						0 / 2	390 - 730	280
2-Nitroaniline						0 / 2	980 - 1800	695
2-Nitrophenol						0 / 2	390 - 730	280
3,3'-Dichlorobenzidine						0 / 2	390 - 730	280

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SEDIMENT DATA SUMMARY - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3-Nitroaniline						0 / 2	390 - 1800	548
4,6-Dinitro-2-methylphenol						0 / 2	980 - 1800	695
4-Bromophenyl-phenylether						0 / 2	390 - 730	280
4-Chloro-3-methylphenol						0 / 2	390 - 730	280
4-Chloroaniline						0 / 2	390 - 730	280
4-Chlorophenyl-phenyl ether						0 / 2	390 - 730	280
4-Methylphenol						0 / 1	730	365
4-Nitroaniline						0 / 2	980 - 1800	695
4-Nitrophenol						0 / 2	980 - 1800	695
Acenaphthene	10	J	15	J	SD-12-03-ME	2 / 4	1 - 730	146
Acenaphthylene	19	J	23	J	SD-12-03-ME	2 / 4	1 - 730	151
Acetophenone						0 / 1	390	195
Anthracene	69	J	79		SD-12-03-ME	2 / 4	67 - 730	177
Atrazine						0 / 1	390	195
Benzaldehyde						0 / 1	390	195
Benzo(a)anthracene	140	J	560	J	SD-12-01-ME	6 / 6	67 - 390	307
Benzo(a)pyrene	160	J	1000	J	SD-12-01-ME	6 / 6	67 - 390	430
Benzo(b)fluoranthene	350	J	1500	J	SD-12-01-ME	6 / 6	67 - 390	798
Benzo(g,h,i)perylene	280	J	640	J	SD-12-01-ME	3 / 4	67 - 730	394
Benzo(k)fluoranthene	350	J	800	J	SD-12-01-FW	6 / 6	67 - 390	510
bis(2-Chloroethoxy)methane						0 / 2	390 - 730	280
bis(2-Chloroethyl)ether						0 / 2	390 - 730	280
bis(2-Ethylhexyl)phthalate	260	J	660	J	SD-12-01-FW	4 / 4	390	443
Butylbenzylphthalate						0 / 2	390 - 730	280
Caprolactam						0 / 1	390	195
Carbazole						0 / 2	390 - 730	280
Chrysene	180	J	850	J	SD-12-01-ME	6 / 6	67 - 390	467
Dibenz(a,h)anthracene	150		320	J	SD-12-01-ME	2 / 4	2 - 730	258
Dibenzofuran						0 / 2	390 - 730	280
Diethylphthalate						0 / 2	390 - 730	280
Dimethylphthalate						0 / 2	390 - 730	280
Di-n-butylphthalate						0 / 2	390 - 730	280
Di-n-octylphthalate						0 / 2	390 - 730	280
Fluoranthene	260	J	1200	J	SD-12-01-ME	6 / 6	67 - 390	688
Fluorene	47	J	78	J	SD-12-03-ME	2 / 4	1 - 730	171
Hexachlorobenzene						0 / 2	390 - 730	280
Hexachlorobutadiene sv						0 / 2	390 - 730	280
Hexachlorocyclopentadiene						0 / 2	390 - 730	280
Hexachloroethane						0 / 2	390 - 730	280
Indeno(1,2,3-cd)pyrene	79	J	740	J	SD-12-01-ME	5 / 5	67 - 390	314
Isophorone						0 / 2	390 - 730	280
Naphthalene	26	J	120	J	SD-12-03-ME	2 / 4	1 - 730	177
Nitrobenzene						0 / 2	390 - 730	280
N-Nitroso-di-n-propylamine						0 / 2	390 - 730	280
N-nitrosodiphenylamine	100	J	100	J	SD-12-03-FW	1 / 2	390	148
Pentachlorophenol						0 / 2	980 - 1800	695
Phenanthrene	230	J	570	J	SD-12-01-ME	4 / 5	67 - 730	373
Phenol						0 / 2	390 - 730	280
Pyrene	220	J	1000	J	SD-12-01-ME	6 / 6	67 - 390	622
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.32 - 0.33	0.16
4,4'-DDD	1.9		17		SD-12-01-ME	3 / 4	0.32 - 3.1	5.7
4,4'-DDE	0.52	J	4.4	J	SD-12-03-FW	6 / 6	0.32 - 3.1	2.1
4,4'-DDT	0.53	J	1.3	J	SD-12-01-ME	3 / 5	0.32 - 7.3	1.6
Aldrin	0.51	J	0.51	J	SD-12-03-FW	1 / 4	0.16 - 1.6	0.37
alpha-BHC						0 / 4	0.16 - 3.8	0.72
alpha-Chlordane	1.1	J	2.4	J	SD-12-01-ME	4 / 5	0.16 - 1.6	1.5
Aroclor 1016						0 / 4	3.2 - 73	14
Aroclor 1221						0 / 4	6.5 - 150	28
Aroclor 1232						0 / 4	3.2 - 73	14

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Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Aroclor 1242						0 / 4	3.2 - 73	14
Aroclor 1248	15	J	28	J	SD-12-01-ME	2 / 4	3.2 - 73	24
Aroclor 1254						0 / 4	3.2 - 73	14
Aroclor 1260	18		58		SD-12-01-ME	2 / 4	3.2 - 73	32
beta-BHC	0.71	J	1.7	J	SD-12-01-FW	2 / 6	0.16 - 3.8	0.88
delta-BHC						0 / 4	0.16 - 3.8	0.72
Dieldrin	0.42	J	1.5	J	SD-12-03-FW	4 / 6	0.32 - 3.1	0.95
Endosulfan I	0.62	J	0.62	J	SD-12-03-FW	1 / 4	0.16 - 1.6	0.40
Endosulfan II	0.69	J	0.69	J	SD-12-01-FW	1 / 5	0.32 - 7.3	1.2
Endosulfan sulfate						0 / 4	0.32 - 7.3	1.4
Endrin	0.21	J	2.6	J	SD-12-03-FW	5 / 6	0.32 - 3.1	1.4
Endrin aldehyde	0.87	J	1.8	J	SD-12-01-ME	3 / 4	0.32 - 3.1	1.3
Endrin ketone						0 / 4	0.32 - 7.3	1.4
gamma-BHC (Lindane)	0.23	J	0.34	J	SD-12-03-ME	2 / 4	0.16 - 3.8	0.82
gamma-Chlordane	0.34	J	1.7	J	SD-12-03-FW	5 / 6	0.16 - 1.6	1.1
Heptachlor						0 / 4	0.16 - 3.8	0.72
Heptachlor epoxide	0.27	J	0.46	J	SD-12-01-ME	2 / 4	0.16 - 3.8	1
Methoxychlor						0 / 4	1.6 - 38	7.2
Toxaphene						0 / 4	16 - 380	72
Metals - mg/Kg								
Aluminum	4560		27500		SD-12-03-ME	6 / 6	3.5 - 9.14	15280
Antimony	19.2		117	J	SD-12-03-ME	4 / 5	0.27 - 0.95	45
Arsenic	38.4		4550		SD-12-03-ME	6 / 6	0.22 - 1	1736
Barium	19.6		121		SD-12-03-TR	6 / 6	0.019 - 0.4	57
Beryllium	0.55		2		SD-12-01-ME	4 / 5	0.028 - 0.49	1.2
Cadmium	1.3		13.5		SD-12-03-TR	6 / 6	0.037 - 0.6	7.3
Calcium	2230		8920		SD-12-01-ME	6 / 6	1.7 - 2.14	5523
Chromium	42.1	J	2120		SD-12-01-ME	6 / 6	0.056 - 1	812
Cobalt	11		38.1		SD-12-03-ME	6 / 6	0.36 - 0.4	28
Copper	40.5		2080		SD-12-01-ME	6 / 6	0.083 - 0.44	882
Cyanide						0 / 2	1.1 - 1.2	0.58
Iron	7530		107000		SD-12-03-ME	6 / 6	0.57 - 1.4	62038
Lead	16.8		1240		SD-12-01-ME	6 / 6	0.27 - 0.6	529
Magnesium	610		3070		SD-12-03-TR	6 / 6	0.83 - 15.18	1548
Manganese	195	J	1180		SD-12-03-TR	6 / 6	0.019 - 0.24	562
Mercury	0.15	J	44.8		SD-12-03-ME	5 / 6	0.0037 - 0.17	13
Nickel	5.4		28.3		SD-12-01-ME	6 / 6	0.15 - 0.8	18
Potassium	160		837	J	SD-12-03-TR	5 / 6	2.7 - 450	438
Selenium	1.3		30.3		SD-12-03-ME	5 / 6	0.41 - 1	10
Silver	0.54	J	1.8		SD-12-03-TR	3 / 5	0.01 - 1	0.81
Sodium	141		793	J	SD-12-03-TR	4 / 6	0.22 - 708	362
Thallium	1.4		1.4		SD-12-03-FW	1 / 5	0.044 - 1.5	0.80
Vanadium	10.8		127		SD-12-03-ME	6 / 6	0.074 - 0.64	60
Zinc	1370		4760		SD-12-03-ME	6 / 6	0.17 - 1.7	2513
AVS-SEM - mg/Kg								
Arsenic	224	J	255	J	SD-12-01-ME	2 / 2	N/A	239
Cadmium	2.5		78		SD-12-03-TR	5 / 6	5.6	16
Copper	39		331		SD-12-03-TR	6 / 6	N/A	141
Lead	33	J	675		SD-12-03-ME	6 / 6	N/A	251
Mercury	0.16	J	0.16	J	SD-12-03-TR	1 / 4	0.01	0.044
Nickel	13		16	J	SD-12-03-ME	3 / 6	77.7 - 162	34
SEM/AVS Ratio	0.25		1.5		SD-12-03-ME	6 / 6	N/A	0.74
Sulfide	372		2924		SD-12-03-FW	6 / 6	N/A	1699
Zinc	857	J	3050	J	SD-12-01-FW	6 / 6	N/A	1630
Total Combustible Organics (mg/Kg)	42200		912000	J	SD-12-01-ME	5 / 5	2000	332640
Total Organic Carbon (mg/Kg)	150000	J	150000	J	SD-12-03-TR	1 / 1	250	150000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-72
SEDIMENT DATA SUMMARY - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	13 - 14	6.8
1,1,1-Trichloroethane	59	J	59	J	SD-13-01-TR	1 / 3	22 - 104	53
1,1,2,2-Tetrachloroethane						0 / 3	22 - 35	15
1,1,2-Trichloro-1,2,2-trifluoroetha						0 / 1	22	11
1,1,2-Trichloroethane						0 / 3	22 - 35	15
1,1-Dichloroethane						0 / 3	22 - 104	37
1,1-Dichloroethene						0 / 3	22 - 104	37
1,2,4-Trichlorobenzene						0 / 1	22	11
1,2-Dibromo-3-chloropropane						0 / 1	22	11
1,2-Dibromoethane						0 / 1	22	11.0
1,2-Dichlorobenzene						0 / 1	22	11
1,2-Dichloroethane						0 / 3	22 - 104	37
1,2-Dichloropropane						0 / 1	22	11.0
1,3-Dichlorobenzene						0 / 1	22	11
1,4-Dichlorobenzene						0 / 1	22	11
2-Butanone	160	J	190	J	SD-13-01-FW	2 / 3	22	120
2-Hexanone						0 / 1	22	11
4-Methyl-2-Pentanone						0 / 1	22	11
Acetone	630	J	4300	J	SD-13-01-TR	2 / 2	22	2465
Benzene	7	J	8	J	SD-13-01-ME	2 / 3	13 - 22	9
Bromodichloromethane						0 / 1	22	11.0
Bromoform						0 / 1	22	11
Bromomethane						0 / 1	22	11
Carbon Disulfide						0 / 1	22	11
Carbon Tetrachloride						0 / 1	22	11
Chlorobenzene						0 / 1	22	11
Chloroethane						0 / 1	22	11
Chloroform						0 / 3	22 - 35	15
Chloromethane						0 / 1	22	11
cis-1,2-Dichloroethene	23	J	23	J	SD-13-03-ME	1 / 3	22 - 35	17.2
cis-1,3-Dichloropropene						0 / 1	22	11
Cyclohexane						0 / 1	22	11
Dibromochloromethane						0 / 1	22	11.0
Dichlorodifluoromethane						0 / 1	22	11
Ethylbenzene	9	J	9	J	SD-13-01-ME	1 / 3	13 - 22	9
Isopropylbenzene						0 / 1	22	11
Methyl Acetate						0 / 1	22	11
Methyl tert-Butyl Ether						0 / 1	22	11
Methylcyclohexane						0 / 1	22	11
Methylene chloride						0 / 3	22 - 104	37
Naphthalene						0 / 2	97 - 104	50.3
Styrene						0 / 1	22	11
Tetrachloroethene						0 / 3	22 - 108	38
Toluene						0 / 1	22	11
trans-1,2-Dichloroethene						0 / 3	22 - 104	37
trans-1,3-Dichloropropene						0 / 1	22	11
Trichloroethene	37	J	37	J	SD-13-03-ME	1 / 3	22 - 35	22
Trichlorofluoromethane						0 / 1	22	11
Vinyl chloride						0 / 3	22 - 104	37
Xylene, m/p-						0 / 3	22 - 35	14.8
Xylene, o-						0 / 3	22 - 35	15
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	280	140
2,2'-oxybis(1-Chloropropane)						0 / 1	280	140
2,4,5-Trichlorophenol						0 / 1	690	345
2,4,6-Trichlorophenol						0 / 1	280	140
2,4-Dichlorophenol						0 / 1	280	140
2,4-Dimethylphenol						0 / 1	280	140
2,4-Dinitrophenol						0 / 1	690	345
2,4-Dinitrotoluene						0 / 1	280	140
2,6-Dinitrotoluene						0 / 1	280	140
2-Chloronaphthalene						0 / 1	280	140

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WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
2-Chlorophenol						0 / 1	280	140
2-Methylnaphthalene	23	J	73		SD-13-01-ME	2 / 3	67 - 280	79
2-Methylphenol						0 / 1	280	140
2-Nitroaniline						0 / 1	690	345
2-Nitrophenol						0 / 1	280	140
3,3'-Dichlorobenzidine						0 / 1	280	140
3+4-Methylphenols						0 / 1	280	140
3-Nitroaniline						0 / 1	280	140
4,6-Dinitro-2-methylphenol						0 / 1	690	345
4-Bromophenyl-phenylether						0 / 1	280	140
4-Chloro-3-methylphenol						0 / 1	280	140
4-Chloroaniline						0 / 1	280	140
4-Chlorophenyl-phenyl ether						0 / 1	280	140
4-Nitroaniline						0 / 1	690	345
4-Nitrophenol						0 / 1	690	345
Acenaphthene	22	J	89	J	SD-13-01-ME	2 / 3	67 - 280	84
Acenaphthylene	26	J	31	J	SD-13-01-ME	2 / 3	67 - 280	66
Acetophenone						0 / 1	280	140
Anthracene	99		300		SD-13-01-ME	2 / 3	67 - 280	180
Atrazine						0 / 1	280	140
Benzaldehyde						0 / 1	280	140
Benzo(a)anthracene	110	J	1700		SD-13-01-ME	6 / 6	67 - 280	825
Benzo(a)pyrene	150	J	1700		SD-13-01-ME	6 / 6	67 - 280	908
Benzo(b)fluoranthene	270	J	3600	J	SD-13-03-FW	6 / 6	67 - 280	1662
Benzo(g,h,i)perylene	260	J	820		SD-13-01-ME	5 / 6	67 - 280	412
Benzo(k)fluoranthene	570	J	3400	J	SD-13-03-FW	5 / 6	67 - 280	1310
Bis(2-Chloroethoxy)methane						0 / 1	280	140
Bis(2-Chloroethyl)ether						0 / 1	280	140
bis(2-Ethylhexyl)phthalate	140	J	5100	J	SD-13-03-FW	4 / 4	280	1835
Butylbenzylphthalate	230	J	230	J	SD-13-03-FW	1 / 2	280	185
Caprolactam						0 / 1	280	140
Carbazole	170	J	170	J	SD-13-03-FW	1 / 2	280	155
Chrysene	150	J	1700		SD-13-01-ME	6 / 6	67 - 280	1017
Dibenz(a,h)anthracene	180		330	J	SD-13-01-FW	3 / 4	67 - 280	218
Dibenzofuran						0 / 1	280	140
Diethylphthalate						0 / 1	280	140
Dimethylphthalate						0 / 1	280	140
Di-n-Butylphthalate						0 / 1	280	140
Di-n-octylphthalate						0 / 1	280	140
Fluoranthene	230	J	5200		SD-13-01-ME	6 / 6	67 - 280	2188
Fluorene	67	J	220		SD-13-01-ME	2 / 3	67 - 280	142
Hexachlorobenzene						0 / 1	280	140
Hexachlorobutadiene sv						0 / 1	280	140
Hexachlorocyclopentadiene						0 / 1	280	140
Hexachloroethane						0 / 1	280	140
Indeno(1,2,3-cd)pyrene	590	J	1000		SD-13-01-ME	5 / 6	67 - 280	643
Isophorone						0 / 1	280	140
Naphthalene	40	J	67	J	SD-13-01-ME	2 / 3	67 - 280	82
Nitrobenzene						0 / 1	280	140
N-Nitroso-di-n-propylamine						0 / 1	280	140
N-Nitrosodiphenylamine						0 / 1	280	140
Pentachlorophenol						0 / 1	690	345
Phenanthrene	450	J	2700		SD-13-01-ME	5 / 6	67 - 280	945
Phenol						0 / 1	280	140
Pyrene	230	J	4000		SD-13-01-ME	6 / 6	67 - 280	1672
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.31 - 3.3	0.90
4,4'-DDD	2.3	J	310		SD-13-03-ME	6 / 6	0.31 - 3.3	59
4,4'-DDE	1.6	J	130		SD-13-03-ME	6 / 6	0.31 - 3.3	28
4,4'-DDT	0.45	J	12	J	SD-13-03-ME	5 / 6	0.31 - 3.3	3.6
Aldrin	0.47	J	1.6	J	SD-13-03-FW	3 / 6	0.16 - 1.6	0.82
alpha-BHC	0.32	J	1.7	J	SD-13-03-FW	3 / 6	0.16 - 1.6	0.73
alpha-Chlordane	3.2	J	93		SD-13-03-ME	5 / 6	0.16 - 1.6	25
Aroclor 1016						0 / 3	3.1 - 22	4.7
Aroclor 1221						0 / 3	6.3 - 45	9.7
Aroclor 1232						0 / 3	3.1 - 22	4.7

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TABLE 2-72
SEDIMENT DATA SUMMARY - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Aroclor 1242						0 / 3	3.1 - 22	4.7
Aroclor 1248	25	J	170	J	SD-13-03-ME	2 / 3	3.1 - 22	69
Aroclor 1254	45		45		SD-13-01-TR	1 / 3	3.1 - 22	16.1
Aroclor 1260	79		310	J	SD-13-03-FW	3 / 4	3.1 - 22	163
beta-BHC	1.5	J	3.1	J	SD-13-03-FW	3 / 6	0.16 - 1.6	1.4
delta-BHC	15	J	15	J	SD-13-03-ME	1 / 3	0.16 - 1.6	5.2
Dieldrin	1.4	J	11	J	SD-13-03-ME	4 / 5	0.31 - 3.3	4.0
Endosulfan I						0 / 3	0.16 - 1.6	0.48
Endosulfan II	0.39	J	4.7	J	SD-13-02-FW	2 / 4	0.31 - 3.3	2.0
Endosulfan Sulfate	0.38	J	0.38	J	SD-13-01-ME	1 / 3	0.31 - 3.3	1.0
Endrin	0.2	J	9.6	J	SD-13-01-ME	3 / 5	0.31 - 3.3	2.6
Endrin Aldehyde	2.2	J	10	J	SD-13-03-FW	4 / 5	0.31 - 3.3	4.7
Endrin Ketone						0 / 3	0.31 - 3.3	0.97
gamma-BHC (Lindane)						0 / 3	0.16 - 1.6	0.48
gamma-Chlordane	1	J	650	J	SD-13-03-ME	5 / 6	0.16 - 1.6	115
Heptachlor						0 / 3	0.16 - 1.6	0.48
Heptachlor Epoxide	0.4	J	0.4	J	SD-13-01-ME	1 / 3	0.16 - 1.6	0.58
Methoxychlor						0 / 3	1.6 - 16	4.8
Toxaphene						0 / 3	16 - 160	48
Metals - mg/Kg								
Aluminum	6430	J	34400	J	SD-13-02-FW	6 / 6	3.5 - 9.14	21638
Antimony	1.7	J	61	J	SD-13-01-FW	5 / 5	0.27 - 0.74	23
Arsenic	15.9		4210	J	SD-13-01-FW	6 / 6	0.22 - 1	1267
Barium	63.8		155	J	SD-13-03-FW	6 / 6	0.018 - 0.4	103
Beryllium	0.45	J	2	J	SD-13-02-FW	6 / 6	0.027 - 0.2	1.3
Cadmium	3.1		13.8	J	SD-13-01-FW	6 / 6	0.35 - 0.6	8.3
Calcium	3020		17000	J	SD-13-02-FW	6 / 6	1.6 - 2.14	8625
Chromium	61.2	J	725	J	SD-13-02-FW	6 / 6	0.055 - 1	513
Cobalt	7.2	J	40.7	J	SD-13-03-FW	6 / 6	0.36 - 0.38	19
Copper	113		2340	J	SD-13-01-FW	6 / 6	0.082 - 0.44	1015
Iron	12800	J	54700	J	SD-13-01-FW	6 / 6	0.57 - 1.4	41217
Lead	340	J	1270	J	SD-13-01-FW	6 / 6	0.27 - 0.6	871
Magnesium	1930		7610	J	SD-13-03-FW	6 / 6	3.5 - 15.18	3438
Manganese	123		1050	J	SD-13-02-FW	6 / 6	0.018 - 0.24	664
Mercury	0.25	J	19.5	J	SD-13-01-FW	6 / 6	0.005 - 0.02	7.5
Nickel	15.9	J	53.4	J	SD-13-03-FW	6 / 6	0.15 - 0.8	26
Potassium	477	J	2030	J	SD-13-03-FW	6 / 6	2.7 - 4.38	996
Selenium	0.53	J	26.3	J	SD-13-01-FW	5 / 6	0.053 - 1	10
Silver	0.21	J	2	J	SD-13-01-FW	4 / 6	0.01 - 2	0.91
Sodium	570		1270	J	SD-13-02-FW	6 / 6	0.22 - 98.04	842
Thallium	3.2	J	3.7	J	SD-13-01-FW	2 / 5	0.039 - 1.14	1.6
Vanadium	27.4		120	J	SD-13-03-FW	6 / 6	0.073 - 0.64	75
Zinc	445	J	2670	J	SD-13-03-FW	6 / 6	0.16 - 1.7	1681
AVS-SEM - mg/Kg								
Arsenic	37	J	37	J	SD-13-03-ME	1 / 2	3.745	20
Cadmium	2.0	J	12	J	SD-13-01-FW	4 / 6	5.6	4.5
Copper	37	J	2270	J	SD-13-01-FW	5 / 6	3.175	579
Lead	242	J	1590	J	SD-13-01-FW	6 / 6	N/A	756
Mercury	0.54	J	0.55	J	SD-13-03-FW	2 / 6	0.01 - 10.03	1.9
Nickel	8.8	J	14		SD-13-01-TR	3 / 6	37.4 - 221	31
SEM/AVS Ratio	0.33		58		SD-13-03-FW	6 / 6	N/A	15
Sulfide	13	J	2822	J	SD-13-01-FW	6 / 6	N/A	992
Zinc	327	J	1700	J	SD-13-01-FW	6 / 6	N/A	861
Total Combustible Organics	118000	J	385000		SD-13-02-FW	5 / 5	2000	239600
Total Organic Carbon	300000		300000		SD-13-01-TR	1 / 1	250	300000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-73
SEDIMENT DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 3	12 - 14	6.3
1,1,2,2-Tetrachloroethane						0 / 3	12 - 14	6.3
1,1,2-Trichloroethane						0 / 3	12 - 14	6.3
1,1-Dichloroethane						0 / 3	12 - 14	6.3
1,1-Dichloroethene						0 / 3	12 - 14	6.3
1,2-Dichloroethane						0 / 3	12 - 14	6.3
1,2-Dichloroethene(total)						0 / 3	12 - 14	6.3
1,2-Dichloropropane						0 / 3	12 - 14	6.3
2-Butanone						0 / 3	12 - 14	6.3
2-Hexanone						0 / 3	12 - 14	6.3
4-Methyl-2-pentanone						0 / 3	12 - 14	6.3
Acetone	58	J	140	J	SD-14-01-FW	2 / 3	12	68
Benzene						0 / 3	12 - 14	6.3
Bromodichloromethane						0 / 3	12 - 14	6.3
Bromoform						0 / 3	12 - 14	6.3
Bromomethane						0 / 3	12 - 14	6.3
Carbon Disulfide						0 / 3	12 - 14	6.3
Carbon Tetrachloride						0 / 3	12 - 14	6.3
Chlorobenzene						0 / 3	12 - 14	6.3
Chloroethane						0 / 3	12 - 14	6.3
Chloroform						0 / 3	12 - 14	6.3
Chloromethane						0 / 3	12 - 14	6.3
cis-1,3-Dichloropropene						0 / 3	12 - 14	6.3
Dibromochloromethane						0 / 3	12 - 14	6.3
Ethylbenzene						0 / 3	12 - 14	6.3
Methylene Chloride						0 / 3	12 - 14	6.3
Styrene						0 / 3	12 - 14	6.3
Tetrachloroethene						0 / 3	12 - 14	6.3
Toluene	3	J	3	J	SD-14-03-FW	1 / 3	12	5.0
trans-1,3-Dichloropropene						0 / 3	12 - 14	6.3
Trichloroethene						0 / 3	12 - 14	6.3
Vinyl Chloride						0 / 3	12 - 14	6.3
Xylenes (total)						0 / 3	12 - 14	6.3
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	2100 - 2300	1083
1,2-Dichlorobenzene						0 / 3	2100 - 2300	1083
1,3-Dichlorobenzene						0 / 3	2100 - 2300	1083
1,4-Dichlorobenzene						0 / 3	2100 - 2300	1083
2,2'-oxybis(1-Chloropropane)						0 / 3	2100 - 2300	1083
2,4,5-Trichlorophenol						0 / 3	5000 - 5600	2600
2,4,6-Trichlorophenol						0 / 3	2100 - 2300	1083
2,4-Dichlorophenol						0 / 3	2100 - 2300	1083
2,4-Dimethylphenol						0 / 3	2100 - 2300	1083
2,4-Dinitrophenol						0 / 3	5000 - 5600	2600
2,4-Dinitrotoluene						0 / 3	2100 - 2300	1083
2,6-Dinitrotoluene						0 / 3	2100 - 2300	1083
2-Chloronaphthalene						0 / 3	2100 - 2300	1083
2-Chlorophenol						0 / 3	2100 - 2300	1083
2-Methylnaphthalene						0 / 3	2100 - 2300	1083
2-Methylphenol						0 / 3	2100 - 2300	1083
2-Nitroaniline						0 / 3	5000 - 5600	2600
2-Nitrophenol						0 / 3	2100 - 2300	1083
3,3'-Dichlorobenzidine						0 / 3	2100 - 2300	1083
3-Nitroaniline						0 / 3	5000 - 5600	2600
4,6-Dinitro-2-methylphenol						0 / 3	5000 - 5600	2600
4-Bromophenyl-phenylether						0 / 3	2100 - 2300	1083
4-Chloro-3-methylphenol						0 / 3	2100 - 2300	1083
4-Chloroaniline						0 / 3	2100 - 2300	1083
4-Chlorophenyl-phenyl ether						0 / 3	2100 - 2300	1083

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TABLE 2-73
SEDIMENT DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Methylphenol						0 / 3	2100 - 2300	1083
4-Nitroaniline						0 / 3	5000 - 5600	2600
4-Nitrophenol						0 / 3	5000 - 5600	2600
Acenaphthene						0 / 3	2100 - 2300	1083
Acenaphthylene						0 / 3	2100 - 2300	1083
Anthracene	660	J	660	J	SD-14-01-FW	1 / 3	2100 - 2300	953
Benzo(a)anthracene	700	J	1100	J	SD-14-01-FW	3 / 3	N/A	967
Benzo(a)pyrene	890	J	890	J	SD-14-03-FW	1 / 3	2100	997
Benzo(b)fluoranthene	920	J	2100	J	SD-14-03-FW	3 / 3	N/A	1440
Benzo(g,h,i)perylene						0 / 3	2100 - 2300	1083
Benzo(k)fluoranthene	1100	J	1100	J	SD-14-01-FW	1 / 3	2100 - 2300	1100
bis(2-Chloroethoxy)methane						0 / 3	2100 - 2300	1083
bis(2-Chloroethyl)ether						0 / 3	2100 - 2300	1083
bis(2-Ethylhexyl)phthalate	730	J	1100	J	SD-14-03-FW	2 / 3	2100	960
Butylbenzylphthalate						0 / 3	2100 - 2300	1083
Carbazole						0 / 3	2100 - 2300	1083
Chrysene	910	J	1400	J	SD-14-03-FW	3 / 3	N/A	1170
Di-n-butylphthalate						0 / 3	2100 - 2300	1083
Di-n-octylphthalate						0 / 3	2100 - 2300	1083
Dibenz(a,h)anthracene						0 / 3	2100 - 2300	1083
Dibenzofuran						0 / 3	2100 - 2300	1083
Diethylphthalate						0 / 3	2100 - 2300	1083
Dimethylphthalate						0 / 3	2100 - 2300	1083
Fluoranthene	2200	J	2800	J	SD-14-03-FW	3 / 3	N/A	2467
Fluorene						0 / 3	2100 - 2300	1083
Hexachlorobenzene						0 / 3	2100 - 2300	1083
Hexachlorobutadiene sv						0 / 3	2100 - 2300	1083
Hexachlorocyclopentadiene						0 / 3	2100 - 2300	1083
Hexachloroethane						0 / 3	2100 - 2300	1083
Indeno(1,2,3-cd)pyrene						0 / 3	2100 - 2300	1083
Isophorone						0 / 3	2100 - 2300	1083
N-Nitroso-di-n-propylamine						0 / 3	2100 - 2300	1083
N-nitrosodiphenylamine						0 / 3	2100 - 2300	1083
Naphthalene						0 / 3	2100 - 2300	1083
Nitrobenzene						0 / 3	2100 - 2300	1083
Pentachlorophenol						0 / 3	5000 - 5600	2600
Phenanthrene	810	J	2600	J	SD-14-01-FW	3 / 3	N/A	1503
Phenol						0 / 3	2100 - 2300	1083
Pyrene	1200	J	2000	J	SD-14-03-FW	3 / 3	N/A	1667
PCBs/Pesticides - ug/Kg								
4,4'-DDD	9.7	J	9.7	J	SD-14-01-FW	1 / 3	21 - 23	11
4,4'-DDE	8.2	J	8.2	J	SD-14-01-FW	1 / 3	21 - 23	10
4,4'-DDT						0 / 3	21 - 23	11
Aldrin						0 / 3	11 - 12	5.7
alpha-BHC						0 / 3	11 - 12	5.7
alpha-Chlordane	3.3	J	5	J	SD-14-03-FW	3 / 3	N/A	4.1
Aroclor 1016						0 / 3	210 - 230	108
Aroclor 1221						0 / 3	420 - 470	218
Aroclor 1232						0 / 3	210 - 230	108
Aroclor 1242						0 / 3	210 - 230	108
Aroclor 1248						0 / 3	210 - 230	108
Aroclor 1254						0 / 3	210 - 230	108
Aroclor 1260						0 / 3	210 - 230	108
beta-BHC						0 / 3	11 - 12	5.7
delta-BHC						0 / 3	11 - 12	5.7

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TABLE 2-73
SEDIMENT DATA SUMMARY - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	20	J	20	J	SD-14-03-FW	1 / 3	21	14
Endosulfan I	8	J	18	J	SD-14-03-FW	3 / 3	N/A	11
Endosulfan II	2.6	J	2.6	J	SD-14-01-FW	1 / 3	21 - 23	8.2
Endosulfan sulfate						0 / 3	21 - 23	11
Endrin						0 / 3	21 - 23	11
Endrin aldehyde						0 / 3	21 - 23	11
Endrin ketone						0 / 3	21 - 23	11
gamma-BHC (Lindane)						0 / 3	11 - 12	5.7
gamma-Chlordane						0 / 3	11 - 12	5.7
Heptachlor						0 / 3	11 - 12	5.7
Heptachlor epoxide						0 / 3	11 - 12	5.7
Methoxychlor						0 / 3	110 - 120	57
Toxaphene						0 / 3	1100 - 1200	567
Metals - mg/Kg								
Aluminum	3200		4030		SD-14-01-FW	3 / 3	N/A	3687
Antimony	0.85	J	0.99	J	SD-14-01-FW	3 / 3	N/A	0.91
Arsenic	49.1		73.4		SD-14-03-FW	3 / 3	N/A	61
Barium	13.4		18.4		SD-14-03-FW	3 / 3	N/A	16
Beryllium	0.21		0.21		SD-14-01-FW	1 / 3	0.19 - 0.2	0.14
Cadmium	0.4		1		SD-14-03-FW	3 / 3	N/A	0.64
Calcium	1020		1760		SD-14-01-FW	3 / 3	N/A	1367
Chromium	43	J	216		SD-14-01-FW	3 / 3	N/A	104
Cobalt	2.9		5		SD-14-01-FW	3 / 3	N/A	4.1
Copper	46		64.9		SD-14-02-FW	3 / 3	N/A	57
Cyanide						0 / 3	0.51 - 0.62	0.29
Iron	9030		19400	J	SD-14-01-FW	3 / 3	N/A	14010
Lead	34.5		130	J	SD-14-01-FW	3 / 3	N/A	68
Magnesium	1200		1750		SD-14-01-FW	3 / 3	N/A	1407
Manganese	84.9	J	172	J	SD-14-03-FW	3 / 3	N/A	133
Mercury	0.16	J	1.4	J	SD-14-02-FW	3 / 3	N/A	0.59
Nickel	5.4		10.4		SD-14-01-FW	3 / 3	N/A	7.3
Potassium	455		586		SD-14-01-FW	3 / 3	N/A	509
Selenium	0.61		0.73	J	SD-14-01-FW	2 / 3	0.61	0.55
Silver						0 / 3	0.26 - 0.3	0.14
Sodium	57.2		75.6		SD-14-02-FW	3 / 3	N/A	69
Thallium	0.81		0.81		SD-14-01-FW	1 / 3	0.61 - 0.71	0.49
Vanadium	8.9		13.3		SD-14-01-FW	3 / 3	N/A	11
Zinc	170		273		SD-14-03-FW	3 / 3	N/A	221
AVS-SEM - mg/Kg								
Cadmium	0.51	J	0.88	J	SD-14-03-FW	3 / 3	N/A	0.74
Copper	36	J	99	J	SD-14-02-FW	3 / 3	N/A	58
Lead	38	J	58	J	SD-14-01-FW	3 / 3	N/A	48
Mercury	0.020	J	0.020	J	SD-14-02-FW	1 / 3	0.003 - 0.004	0.0078
Nickel	95	J	95	J	SD-14-02-FW	1 / 3	4.9 - 46.3	40
SEM/AVS Ratio	0.18		2.9		SD-14-03-FW	3 / 3	N/A	2.0
Sulfide	74		770		SD-14-01-FW	3 / 3	N/A	352
Zinc	205	J	1190	J	SD-14-03-FW	3 / 3	N/A	540
Total Combustible Organics (mg/Kg)	4480		12300		SD-14-03-FW	3 / 3	N/A	9260

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-74
SEDIMENT DATA SUMMARY - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	25	13
1,1,1-Trichloroethane						0 / 1	190	95
1,1,2,2-Tetrachloroethane						0 / 1	63	32
1,1,2-Trichloroethane						0 / 1	63	32
1,1-Dichloroethane						0 / 1	190	95
1,1-Dichloroethene						0 / 1	190	95
1,2-Dichloroethane						0 / 1	190	95
1,2-Dichloroethene(total)	24	J	29	J	SD-15-01-FW	3 / 3	N/A	27
Acetone	210	J	290	J	SD-15-02-FW	2 / 2	N/A	250
Benzene						0 / 1	25	13
Carbon Disulfide	18	J	18	J	SD-15-01-FW	1 / 1	N/A	18
Chloroform						0 / 1	63	32
cis-1,2-Dichloroethene	187	J	187	J	SD-15-01-ME	1 / 1	63	187
Ethylbenzene						0 / 1	25	13
Methylene chloride						0 / 1	190	95
Naphthalene						0 / 1	190	95
Tetrachloroethene	41	J	41	J	SD-15-03-FW	1 / 2	190	68
trans-1,2-Dichloroethene						0 / 1	190	95
Trichloroethene	26	J	206	J	SD-15-01-ME	3 / 3	63	93
Vinyl chloride						0 / 1	190	95
Xylene, m/p-						0 / 1	63	32
Xylene, o-						0 / 1	63	32
SVOCs - ug/Kg								
2-Methylnaphthalene	10	J	10	J	SD-15-01-ME	1 / 1	1	10
Acenaphthene	8	J	8	J	SD-15-01-ME	1 / 1	1	8.0
Acenaphthylene	7	J	7	J	SD-15-01-ME	1 / 1	1	7.0
Anthracene	50	J	50	J	SD-15-01-ME	1 / 1	67	50
Benzo(a)anthracene	200		200		SD-15-01-ME	1 / 1	67	200
Benzo(a)pyrene	180	J	180	J	SD-15-01-ME	1 / 1	67	180
Benzo(b)fluoranthene	440	J	440	J	SD-15-01-ME	1 / 1	67	440
Benzo(g,h,i)perylene	150	J	150	J	SD-15-01-ME	1 / 1	67	150
Benzo(k)fluoranthene	270	J	270	J	SD-15-01-ME	1 / 1	67	270
Chrysene	410		410		SD-15-01-ME	1 / 1	67	410
Dibenz(a,h)anthracene	60	J	60	J	SD-15-01-ME	1 / 1	67	60
Fluoranthene	990		990		SD-15-01-ME	1 / 1	67	990
Fluorene	69	J	69	J	SD-15-01-ME	1 / 1	1	69
Indeno(1,2,3-cd)pyrene	170	J	170	J	SD-15-01-ME	1 / 1	67	170
Naphthalene	15	J	15	J	SD-15-01-ME	1 / 1	67	15
Phenanthrene	400		400		SD-15-01-ME	1 / 1	67	400
Pyrene	590		590		SD-15-01-ME	1 / 1	67	590
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	0.33	0.17
4,4'-DDD	6.9	J	6.9	J	SD-15-01-ME	1 / 1	0.33	6.9
4,4'-DDE	3.8	J	3.8	J	SD-15-01-ME	1 / 1	0.33	3.8
4,4'-DDT	1.8	J	1.8	J	SD-15-01-ME	1 / 1	0.33	1.8
Aldrin						0 / 1	0.17	0.085
alpha-BHC						0 / 1	0.17	0.085
alpha-Chlordane	6	J	6	J	SD-15-01-ME	1 / 1	0.17	6.0
Aroclor 1016						0 / 1	3.3	1.7
Aroclor 1221						0 / 1	6.6	3.3
Aroclor 1232						0 / 1	3.3	1.7
Aroclor 1242						0 / 1	3.3	1.7
Aroclor 1248	43	J	43	J	SD-15-01-ME	1 / 1	3.3	43
Aroclor 1254						0 / 1	3.3	1.7
Aroclor 1260	83		83		SD-15-01-ME	1 / 1	3.3	83
beta-BHC						0 / 1	0.17	0.085

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TABLE 2-74
SEDIMENT DATA SUMMARY - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC						0 / 1	0.17	0.085
Dieldrin	0.57	J	0.57	J	SD-15-01-ME	1 / 1	0.33	0.57
Endosulfan I	0.45	J	15	J	SD-15-03-FW	4 / 4	0.17	7.6
Endosulfan II						0 / 1	0.33	0.17
Endosulfan Sulfate						0 / 1	0.33	0.17
Endrin	0.48	J	0.48	J	SD-15-01-ME	1 / 1	0.33	0.48
Endrin Aldehyde	2	J	2	J	SD-15-01-ME	1 / 1	0.33	2.0
Endrin Ketone						0 / 1	0.33	0.17
gamma-BHC (Lindane)						0 / 1	0.17	0.09
gamma-Chlordane	0.98	J	0.98	J	SD-15-01-ME	1 / 1	0.17	1.0
Heptachlor						0 / 1	0.17	0.085
Heptachlor Epoxide	0.17	J	0.17	J	SD-15-01-ME	1 / 1	0.17	0.17
Methoxychlor						0 / 1	1.7	0.85
Toxaphene						0 / 1	17	8.5
Metals - mg/Kg								
Aluminum	4810	J	6670	J	SD-15-02-FW	4 / 4	8.2	5960
Antimony	3.9	J	6	J	SD-15-02-FW	3 / 3	0.3	4.6
Arsenic	104	J	193	J	SD-15-01-FW	4 / 4	0.51	167
Barium	48.9	J	65.6		SD-15-01-ME	4 / 4	0.043	57
Beryllium	0.76	J	1.1	J	SD-15-03-FW	2 / 2	0.064	0.93
Cadmium	17.7		37.4	J	SD-15-01-FW	4 / 4	0.81	28
Calcium	13200	J	15700	J	SD-15-02-FW	4 / 4	3.8	14325
Chromium	147	J	537	J	SD-15-01-ME	4 / 4	0.13	268
Cobalt	14.1	J	23.1	J	SD-15-01-ME	4 / 4	0.88	18
Copper	181	J	469	J	SD-15-03-FW	4 / 4	0.19	352
Iron	11800	J	22200	J	SD-15-01-FW	4 / 4	1.3	17125
Lead	55.4	J	157	J	SD-15-01-ME	4 / 4	0.62	100
Magnesium	1140	J	1650	J	SD-15-02-FW	4 / 4	8.1	1343
Manganese	956		1400	J	SD-15-01-FW	4 / 4	0.043	1111
Mercury	0.68	J	1.3	J	SD-15-01-ME	3 / 3	0.0059	0.9
Nickel	9.6	J	20.5	J	SD-15-03-FW	4 / 4	0.34	17
Potassium	243	J	390	J	SD-15-02-FW	4 / 4	6.3	294
Selenium	6.5	J	8.6	J	SD-15-02-FW	2 / 3	0.24 - 1.2	5.2
Silver	0.29	J	0.29	J	SD-15-01-ME	1 / 1	0.043	0.29
Sodium	642		962	J	SD-15-03-FW	4 / 4	0.51	819
Thallium	2.4	J	2.4	J	SD-15-01-ME	1 / 1	0.17	2.4
Vanadium	14.2	J	22.9	J	SD-15-02-FW	4 / 4	0.17	20
Zinc	1990	J	3350	J	SD-15-01-FW	4 / 4	0.39	2623
AVS-SEM - mg/Kg								
Arsenic	35	J	35	J	SD-15-01-ME	1 / 1	N/A	35
Cadmium	22	J	60	J	SD-15-03-FW	4 / 4	N/A	35
Copper	346	J	380	J	SD-15-02-FW	2 / 4	3.175 - 138	199
Lead	65	J	168	J	SD-15-01-ME	3 / 4	34	80
Mercury						0 / 4	0.02 - 10.03	1.3
Nickel	31	J	31	J	SD-15-01-ME	1 / 4	32.1 - 340	75
SEM/AVS Ratio	0.38		3		SD-15-03-FW	4 / 4	N/A	1.3
Sulfide	472		3435	J	SD-15-01-FW	4 / 4	N/A	1566
Zinc	1720	J	2670	J	SD-15-01-FW	4 / 4	N/A	2225
Total Combustible Organics (mg/Kg)	381000		702000	J	SD-15-01-ME	4 / 4	2000	491250

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-75
SEDIMENT DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 3	13 - 26	8.7
1,1,2,2-Tetrachloroethane						0 / 3	13 - 26	8.7
1,1,2-Trichloroethane						0 / 3	13 - 26	8.7
1,1-Dichloroethane						0 / 3	13 - 26	8.7
1,1-Dichloroethene						0 / 3	13 - 26	8.7
1,2-Dichloroethane						0 / 3	13 - 26	8.7
1,2-Dichloroethene(total)						0 / 3	13 - 26	8.7
1,2-Dichloropropane						0 / 3	13 - 26	8.7
2-Butanone						0 / 3	13 - 26	8.7
2-Hexanone						0 / 3	13 - 26	8.7
4-Methyl-2-pentanone						0 / 3	13 - 26	8.7
Acetone						0 / 3	24 - 26	13
Benzene						0 / 3	13 - 26	8.7
Bromodichloromethane						0 / 3	13 - 26	8.7
Bromoform						0 / 3	13 - 26	8.7
Bromomethane						0 / 3	13 - 26	8.7
Carbon Disulfide						0 / 3	13 - 26	8.7
Carbon Tetrachloride						0 / 3	13 - 26	8.7
Chlorobenzene						0 / 3	13 - 26	8.7
Chloroethane						0 / 3	13 - 26	8.7
Chloroform						0 / 3	13 - 26	8.7
Chloromethane						0 / 3	13 - 26	8.7
cis-1,3-Dichloropropene						0 / 3	13 - 26	8.7
Dibromochloromethane						0 / 3	13 - 26	8.7
Ethylbenzene						0 / 3	13 - 26	8.7
Methylene Chloride						0 / 3	13 - 26	8.7
Styrene						0 / 3	13 - 26	8.7
Tetrachloroethene						0 / 3	13 - 26	8.7
Toluene						0 / 3	13 - 26	8.7
trans-1,3-Dichloropropene						0 / 3	13 - 26	8.7
Trichloroethene						0 / 3	13 - 26	8.7
Vinyl Chloride						0 / 3	13 - 26	8.7
Xylenes (total)						0 / 3	13 - 26	8.7
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene sv						0 / 3	420 - 840	280
1,2-Dichlorobenzene						0 / 3	420 - 840	280
1,3-Dichlorobenzene						0 / 3	420 - 840	280
1,4-Dichlorobenzene						0 / 3	420 - 840	280
2,2'-oxybis(1-Chloropropane)						0 / 3	420 - 840	280
2,4,5-Trichlorophenol						0 / 3	1000 - 2100	683
2,4,6-Trichlorophenol						0 / 3	420 - 840	280
2,4-Dichlorophenol						0 / 3	420 - 840	280
2,4-Dimethylphenol						0 / 3	420 - 840	280
2,4-Dinitrophenol						0 / 3	1000 - 2100	683
2,4-Dinitrotoluene						0 / 3	420 - 840	280
2,6-Dinitrotoluene						0 / 3	420 - 840	280
2-Chloronaphthalene						0 / 3	420 - 840	280
2-Chlorophenol						0 / 3	420 - 840	280
2-Methylnaphthalene						0 / 3	420 - 840	280
2-Methylphenol						0 / 3	420 - 840	280
2-Nitroaniline						0 / 3	1000 - 2100	683
2-Nitrophenol						0 / 3	420 - 840	280
3,3'-Dichlorobenzidine						0 / 3	420 - 840	280
3-Nitroaniline						0 / 3	1000 - 2100	683
4,6-Dinitro-2-methylphenol						0 / 3	1000 - 2100	683
4-Bromophenyl-phenylether						0 / 3	420 - 840	280
4-Chloro-3-methylphenol						0 / 3	420 - 840	280
4-Chloroaniline						0 / 3	420 - 840	280
4-Chlorophenyl-phenyl ether						0 / 3	420 - 840	280

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TABLE 2-75
SEDIMENT DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Methylphenol						0 / 3	420 - 840	280
4-Nitroaniline						0 / 3	1000 - 2100	683
4-Nitrophenol						0 / 3	1000 - 2100	683
Acenaphthene						0 / 3	420 - 840	280
Acenaphthylene						0 / 3	420 - 840	280
Anthracene						0 / 3	420 - 840	280
Benzo(a)anthracene						0 / 3	420 - 840	280
Benzo(a)pyrene						0 / 3	420 - 840	280
Benzo(b)fluoranthene	45	J	45	J	SD-16-03-FW	1 / 3	420 - 840	225
Benzo(g,h,i)perylene						0 / 3	420 - 840	280
Benzo(k)fluoranthene	45	J	45	J	SD-16-03-FW	1 / 3	420 - 840	225
bis(2-Chloroethoxy)methane						0 / 3	420 - 840	280
bis(2-Chloroethyl)ether						0 / 3	420 - 840	280
bis(2-Ethylhexyl)phthalate	73	J	73	J	SD-16-02-FW	1 / 3	420 - 840	234
Butylbenzylphthalate	130	J	130	J	SD-16-01-FW	1 / 3	420	183
Carbazole						0 / 3	420 - 840	280
Chrysene						0 / 3	420 - 840	280
Di-n-butylphthalate						0 / 3	420 - 840	280
Di-n-octylphthalate						0 / 3	420 - 840	280
Dibenz(a,h)anthracene						0 / 3	420 - 840	280
Dibenzofuran						0 / 3	420 - 840	280
Diethylphthalate						0 / 3	420 - 840	280
Dimethylphthalate						0 / 3	420 - 840	280
Fluoranthene	50	J	88	J	SD-16-01-FW	2 / 3	420	116
Fluorene						0 / 3	420 - 840	280
Hexachlorobenzene						0 / 3	420 - 840	280
Hexachlorobutadiene sv						0 / 3	420 - 840	280
Hexachlorocyclopentadiene						0 / 3	420 - 840	280
Hexachloroethane						0 / 3	420 - 840	280
Indeno(1,2,3-cd)pyrene						0 / 3	420 - 840	280
Isophorone						0 / 3	420 - 840	280
N-Nitroso-di-n-propylamine						0 / 3	420 - 840	280
N-nitrosodiphenylamine						0 / 3	420 - 840	280
Naphthalene						0 / 3	420 - 840	280
Nitrobenzene						0 / 3	420 - 840	280
Pentachlorophenol						0 / 3	1000 - 2100	683
Phenanthrene						0 / 3	420 - 840	280
Phenol						0 / 3	420 - 840	280
Pyrene	61	J	110	J	SD-16-01-FW	2 / 3	420	127
PCBs/Pesticides - ug/Kg								
4,4'-DDD	11		13		SD-16-02-FW	2 / 3	4.2	8.7
4,4'-DDE	0.32	J	3.6	J	SD-16-02-FW	3 / 3	N/A	2.3
4,4'-DDT	0.32	J	6.8		SD-16-02-FW	3 / 3	N/A	3.0
Aldrin						0 / 3	2.1 - 4.3	1.4
alpha-BHC						0 / 3	2.1 - 4.3	1.4
alpha-Chlordane	0.45	J	0.67	J	SD-16-01-FW	2 / 3	4.2	1.1
Aroclor 1016						0 / 3	42 - 84	28
Aroclor 1221						0 / 3	85 - 170	57
Aroclor 1232						0 / 3	42 - 84	28
Aroclor 1242						0 / 3	42 - 84	28
Aroclor 1248						0 / 3	42 - 84	28
Aroclor 1254						0 / 3	42 - 84	28
Aroclor 1260						0 / 3	42 - 84	28
beta-BHC						0 / 3	2.1 - 4.3	1.4
delta-BHC	0.29	J	0.29	J	SD-16-02-FW	1 / 3	2.2 - 4.3	1.2

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TABLE 2-75
SEDIMENT DATA SUMMARY - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Dieldrin	0.32	J	1	J	SD-16-01-FW	3 / 3	N/A	0.60
Endosulfan I						0 / 3	2.1 - 4.3	1.4
Endosulfan II						0 / 3	4.2 - 8.4	2.8
Endosulfan sulfate						0 / 3	4.2 - 8.4	2.8
Endrin						0 / 3	4.2 - 8.4	2.8
Endrin aldehyde						0 / 3	4.2 - 8.4	2.8
Endrin ketone						0 / 3	4.2 - 8.4	2.8
gamma-BHC (Lindane)						0 / 3	2.1 - 4.3	1.4
gamma-Chlordane	0.12	J	0.72	J	SD-16-01-FW	3 / 3	N/A	0.44
Heptachlor						0 / 3	2.1 - 4.3	1.4
Heptachlor epoxide						0 / 3	2.1 - 4.3	1.4
Methoxychlor						0 / 3	21 - 43	14.3
Toxaphene						0 / 3	210 - 430	143
Metals - mg/Kg								
Aluminum	2480		3690		SD-16-02-FW	3 / 3	N/A	2990
Antimony	0.56	J	0.56	J	SD-16-01-FW	1 / 3	0.34 - 0.56	0.34
Arsenic	6.4	J	13.6		SD-16-01-FW	3 / 3	N/A	11
Barium	10.6		21.2		SD-16-03-FW	3 / 3	N/A	15
Beryllium	0.12		0.12		SD-16-02-FW	1 / 3	0.016 - 0.12	0.063
Cadmium	0.1		0.34		SD-16-02-FW	3 / 3	N/A	0.21
Calcium	772		3680	J	SD-16-03-FW	3 / 3	N/A	1881
Chromium	3.3	J	38.4	J	SD-16-02-FW	3 / 3	N/A	21
Cobalt	2.9		5.2		SD-16-03-FW	3 / 3	N/A	4.0
Copper	7.1		32.5		SD-16-02-FW	3 / 3	N/A	21
Cyanide						0 / 3	0.41 - 0.6	0.25
Iron	4860		6850		SD-16-02-FW	3 / 3	N/A	5607
Lead	1.9	J	15.4	J	SD-16-02-FW	3 / 3	N/A	9.1
Magnesium	931		1870		SD-16-02-FW	3 / 3	N/A	1367
Manganese	84	J	158	J	SD-16-02-FW	3 / 3	N/A	112
Mercury	0.13		0.37	J	SD-16-01-FW	2 / 3	0.046	0.17
Nickel	1.6		5.7		SD-16-02-FW	3 / 3	N/A	3.8
Potassium	299		519		SD-16-02-FW	3 / 3	N/A	444
Selenium						0 / 3	0.43 - 0.7	0.28
Silver						0 / 3	0.21 - 0.35	0.14
Sodium	92		92		SD-16-01-FW	1 / 3	37.3 - 60.8	47
Thallium						0 / 3	0.5 - 0.82	0.33
Vanadium	4.2		10.3		SD-16-02-FW	3 / 3	N/A	7.1
Zinc	36.4	J	155	J	SD-16-02-FW	3 / 3	N/A	90
AVS-SEM - mg/Kg								
Cadmium	0.22	J	2.5		SD-16-01-FW	3 / 3	N/A	1.1
Copper	29	J	55		SD-16-02-FW	2 / 3	18.7	31
Lead	11	J	25		SD-16-02-FW	3 / 3	N/A	16
Mercury						0 / 3	0.003 - 0.01	0.0028
Nickel						0 / 3	1.7 - 4.5	1.5
SEM/AVS Ratio	3.1		4.1		SD-16-02-FW	3 / 3	N/A	3.7
Sulfide	14		34		SD-16-02-FW	3 / 3	N/A	23
Zinc	75	J	222		SD-16-02-FW	3 / 3	N/A	142
Total Combustible Organics (mg/Kg)	1390		3040		SD-16-03-FW	2 / 3	125	1498

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-76
SEDIMENT DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 2	24 - 31	14
1,1,1-Trichloroethane						0 / 4	18 - 229	62
1,1,2,2-Tetrachloroethane						0 / 3	18 - 76	26
1,1,2-Trichloroethane						0 / 3	18 - 76	26
1,1-Dichloroethane	3	J	3	J	SD-18-01-FW	1 / 3	178 - 229	69
1,1-Dichloroethene						0 / 3	18 - 229	71
1,2-Dichloroethane						0 / 3	18 - 229	71
1,2-Dichloroethene(total)	59		59		SD-18-01-FW	1 / 1	N/A	59
1,2-Dichloropropane						0 / 1	18	9.0
2-Butanone	65	J	65	J	SD-18-03-FW	1 / 2	18	37
2-Hexanone						0 / 1	18	9.0
4-Methyl-2-pentanone						0 / 1	18	9.0
Acetone	230	J	385	J	SD-18-02-TR	3 / 4	47 - 150	250
Benzene						0 / 3	18 - 31	12
Bromodichloromethane						0 / 1	18	9.0
Bromoform						0 / 1	18	9.0
Bromomethane						0 / 1	18	9.0
Carbon Disulfide						0 / 1	18	9.0
Carbon Tetrachloride						0 / 1	18	9.0
Chlorobenzene						0 / 1	18	9.0
Chloroethane						0 / 1	18	9.0
Chloroform						0 / 3	18 - 76	26
Chloromethane						0 / 1	18	9.0
cis-1,2-Dichloroethene	37	J	37	J	SD-18-02-ME	1 / 2	59 - 76	38
cis-1,3-Dichloropropene						0 / 1	18	9.0
Dibromochloromethane						0 / 1	18	9.0
Ethylbenzene						0 / 3	18 - 31	12
Methylene Chloride						0 / 4	30 - 229	62
Naphthalene						0 / 2	178 - 229	102
Styrene						0 / 1	18	9.0
Tetrachloroethene						0 / 3	18 - 229	71
Toluene						0 / 1	18	9.0
trans-1,2-Dichloroethene						0 / 2	178 - 229	102
trans-1,3-Dichloropropene						0 / 1	18	9.0
Trichloroethene						0 / 3	18 - 76	26
Vinyl Chloride	2	J	2	J	SD-18-01-FW	1 / 3	178 - 229	69
Xylene, m/p-						0 / 2	59 - 76	34
Xylene, o-						0 / 2	59 - 76	34
Xylenes (total)						0 / 1	18	9.0
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	410	205
1,2,4-Trichlorobenzene sv						0 / 1	600	300
1,2-Dichlorobenzene						0 / 1	600	300
1,3-Dichlorobenzene						0 / 1	600	300
1,4-Dichlorobenzene						0 / 1	600	300
2,2'-oxybis(1-Chloropropane)						0 / 2	410 - 600	253
2,4,5-Trichlorophenol						0 / 2	1000 - 1500	625
2,4,6-Trichlorophenol						0 / 2	410 - 600	253
2,4-Dichlorophenol						0 / 2	410 - 600	253
2,4-Dimethylphenol						0 / 2	410 - 600	253
2,4-Dinitrophenol						0 / 2	1000 - 1500	625
2,4-Dinitrotoluene						0 / 2	410 - 600	253
2,6-Dinitrotoluene						0 / 2	410 - 600	253
2-Chloronaphthalene						0 / 2	410 - 600	253
2-Chlorophenol						0 / 2	410 - 600	253
2-Methylnaphthalene	15	J	21	J	SD-18-03-ME	2 / 4	67 - 600	135
2-Methylphenol						0 / 2	410 - 600	253
2-Nitroaniline						0 / 2	1000 - 1500	625
2-Nitrophenol						0 / 2	410 - 600	253
3,3'-Dichlorobenzidine						0 / 2	410 - 600	253

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TABLE 2-76
SEDIMENT DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
3-Nitroaniline						0 / 2	410 - 1500	478
4,6-Dinitro-2-methylphenol						0 / 2	1000 - 1500	625
4-Bromophenyl-phenylether						0 / 2	410 - 600	253
4-Chloro-3-methylphenol						0 / 2	410 - 600	253
4-Chloroaniline						0 / 2	410 - 600	253
4-Chlorophenyl-phenyl ether						0 / 2	410 - 600	253
4-Methylphenol						0 / 1	600	300
4-Nitroaniline						0 / 2	1000 - 1500	625
4-Nitrophenol						0 / 2	1000 - 1500	625
Acenaphthene	29	J	30	J	SD-18-02-ME	2 / 4	67 - 600	141
Acenaphthylene	16	J	23	J	SD-18-03-ME	2 / 4	67 - 600	136
Acetophenone						0 / 1	410	205
Anthracene	130		150		SD-18-02-ME	2 / 4	67 - 600	196
Atrazine						0 / 1	410	205
Benzaldehyde						0 / 1	410	205
Benzo(a)anthracene	1400		1400		SD-18-02-ME	2 / 4	67 - 600	826
Benzo(a)pyrene	1900	J	1900	J	SD-18-02-ME	2 / 3	67 - 600	1367
Benzo(b)fluoranthene	180	J	2500	J	SD-18-02-ME	3 / 4	67 - 600	1345
Benzo(g,h,i)perylene	1400		1600	J	SD-18-03-ME	2 / 4	67 - 600	876
Benzo(k)fluoranthene	410	J	1200	J	SD-18-02-ME	3 / 4	67 - 600	708
bis(2-Chloroethoxy)methane						0 / 2	410 - 600	253
bis(2-Chloroethyl)ether						0 / 2	410 - 600	253
bis(2-Ethylhexyl)phthalate						0 / 2	410 - 600	253
Butylbenzylphthalate						0 / 2	410 - 600	253
Caprolactam						0 / 1	410	205
Carbazole						0 / 2	410 - 600	253
Chrysene	2000		2200		SD-18-02-ME	2 / 4	67 - 600	1176
Dibenz(a,h)anthracene	410	J	430		SD-18-02-ME	2 / 4	67 - 600	336
Dibenzofuran						0 / 2	410 - 600	253
Diethylphthalate						0 / 2	410 - 600	253
Dimethylphthalate						0 / 2	410 - 600	253
Di-n-butylphthalate						0 / 2	410 - 600	253
Di-n-octylphthalate						0 / 2	410 - 600	253
Fluoranthene	220	J	4000		SD-18-02-ME	3 / 4	67 - 600	1905
Fluorene	94		110		SD-18-02-ME	2 / 4	67 - 600	177
Hexachlorobenzene						0 / 2	410 - 600	253
Hexachlorobutadiene sv						0 / 2	410 - 600	253
Hexachlorocyclopentadiene						0 / 2	410 - 600	253
Hexachloroethane						0 / 2	410 - 600	253
Indeno(1,2,3-cd)pyrene	1400		1500	J	SD-18-03-ME	2 / 4	67 - 600	851
Isophorone						0 / 2	410 - 600	253
Naphthalene	29	J	34	J	SD-18-03-ME	2 / 4	67 - 600	142
Nitrobenzene						0 / 2	410 - 600	253
N-Nitroso-di-n-propylamine						0 / 2	410 - 600	253
N-nitrosodiphenylamine						0 / 2	410 - 600	253
Pentachlorophenol						0 / 2	1000 - 1500	625
Phenanthrene	1200		1400		SD-18-02-ME	2 / 4	67 - 600	776
Phenol						0 / 2	410 - 600	253
Pyrene	200	J	3100		SD-18-02-ME	3 / 4	67 - 600	1550
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 2	0.33 - 0.34	0.17
4,4'-DDD	4.9	J	23	J	SD-18-02-ME	3 / 5	0.33 - 6.1	7.5
4,4'-DDE	0.83	J	30		SD-18-03-ME	4 / 5	0.33 - 3.2	13
4,4'-DDT	1.2	J	1.7	J	SD-18-03-ME	2 / 4	0.33 - 6.1	1.9
Aldrin						0 / 4	0.16 - 3.1	0.63
alpha-BHC						0 / 4	0.16 - 3.1	0.63
alpha-Chlordane	7.7	J	17	J	SD-18-03-ME	2 / 4	0.16 - 6.1	7.1
Aroclor 1016						0 / 4	3.3 - 61	12
Aroclor 1221						0 / 4	6.6 - 120	25
Aroclor 1232						0 / 4	3.3 - 61	12
Aroclor 1242						0 / 4	3.3 - 61	12
Aroclor 1248	60	J	170	J	SD-18-03-ME	2 / 4	3.3 - 61	69
Aroclor 1254						0 / 4	3.3 - 61	12
Aroclor 1260	90		190		SD-18-03-ME	2 / 4	3.3 - 61	82
beta-BHC						0 / 4	0.16 - 3.1	0.63

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TABLE 2-76
SEDIMENT DATA SUMMARY - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC						0 / 4	0.16 - 3.1	0.63
Dieldrin	0.33	J	0.94	J	SD-18-03-ME	3 / 4	0.33 - 3.2	0.80
Endosulfan I						0 / 4	0.16 - 3.1	0.63
Endosulfan II						0 / 4	0.33 - 6.1	1.2
Endosulfan sulfate	0.41	J	0.41	J	SD-18-03-ME	1 / 4	0.33 - 6.1	1.3
Endrin	0.087	J	1.3	J	SD-18-02-ME	3 / 4	0.33 - 3.2	1.02
Endrin aldehyde	2.4	J	3.6	J	SD-18-03-ME	2 / 4	0.33 - 6.1	2.7
Endrin ketone						0 / 4	0.33 - 6.1	1.2
gamma-BHC (Lindane)						0 / 4	0.16 - 3.1	0.63
gamma-Chlordane	0.17	J	26	J	SD-18-03-ME	3 / 4	0.16 - 1.6	7.2
Heptachlor						0 / 4	0.16 - 3.1	0.63
Heptachlor epoxide						0 / 4	0.16 - 3.1	0.63
Methoxychlor						0 / 4	1.6 - 31	6.3
Toxaphene						0 / 4	16 - 310	63
Metals - mg/Kg								
Aluminum	3970		24100		SD-18-03-ME	6 / 6	3.5 - 9.14	14237
Antimony	1.1	J	26.9		SD-18-02-TR	6 / 6	0.27 - 0.74	10.9
Arsenic	34.9		1490		SD-18-02-TR	6 / 6	0.22 - 1	696
Barium	12.3		169		SD-18-03-ME	6 / 6	0.018 - 0.4	90
Beryllium	0.67	J	2.3		SD-18-03-ME	5 / 6	0.02 - 0.44	1.3
Cadmium	1.9		16		SD-18-03-ME	6 / 6	0.037 - 0.6	11
Calcium	2960		12700	J	SD-18-03-FW	6 / 6	1.6 - 2.14	7762
Chromium	109	J	4340		SD-18-03-ME	6 / 6	0.055 - 1	1874
Cobalt	3.5		54.9		SD-18-03-ME	6 / 6	0.36 - 0.38	29
Copper	158		1310		SD-18-03-ME	6 / 6	0.082 - 0.44	875
Cyanide						0 / 1	1.3	0.65
Iron	4460		120000		SD-18-02-TR	6 / 6	0.57 - 1.4	56643
Lead	55.4		678		SD-18-03-ME	6 / 6	0.27 - 0.6	384
Magnesium	711		2930		SD-18-03-ME	6 / 6	0.82 - 15.18	1828
Manganese	93	J	1740		SD-18-02-TR	6 / 6	0.018 - 0.24	964
Mercury	0.35		7.5		SD-18-02-ME	6 / 6	0.005 - 0.24	3.6
Nickel	4.6		46.7		SD-18-03-ME	6 / 6	0.15 - 0.8	25
Potassium	195	J	1050		SD-18-03-ME	5 / 5	2.7 - 4.38	606
Selenium	1.8		9	J	SD-18-03-ME	4 / 5	0.4 - 1	5.60
Silver	0.62	J	0.74	J	SD-18-02-ME	2 / 4	0.01 - 1	0.55
Sodium	290		1300	J	SD-18-03-FW	4 / 6	0.22 - 648	618
Thallium						0 / 4	0.043 - 1.9	0.69
Vanadium	8.9		95.9		SD-18-03-ME	6 / 6	0.073 - 0.64	49
Zinc	420		4020		SD-18-02-ME	6 / 6	0.16 - 1.7	2287
AVS-SEM - mg/Kg								
Arsenic	225	J	257	J	SD-18-02-ME	2 / 2	N/A	241
Cadmium	2.3		16	J	SD-18-03-FW	6 / 6	N/A	10
Copper	95	J	468		SD-18-02-TR	6 / 6	N/A	270
Lead	56	J	493		SD-18-03-ME	6 / 6	N/A	291
Mercury	1.9	J	1.9	J	SD-18-02-TR	1 / 4	0.01 - 0.02	0.48
Nickel	14		36	J	SD-18-03-ME	3 / 6	76.9 - 115	37
SEM/AVS Ratio	0.19		6.1		SD-18-02-TR	6 / 6	N/A	1.8
Sulfide	153		6805	J	SD-18-03-FW	6 / 6	N/A	1712
Zinc	469	J	2290	J	SD-18-03-FW	6 / 6	N/A	1378
Total Combustible Organics (mg/Kg)	61100		423000	J	SD-18-03-ME	5 / 5	2000	273220
Total Organic Carbon (mg/Kg)	300000	J	300000	J	SD-18-02-TR	1 / 1	250	300000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-77
SEDIMENT DATA SUMMARY - STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	32	16
1,1,1-Trichloroethane						0 / 2	51 - 237	72
1,1,2,2-Tetrachloroethane						0 / 1	79	40
1,1,2-Trichloroethane						0 / 1	79	40
1,1-Dichloroethane						0 / 1	237	119
1,1-Dichloroethene						0 / 1	237	119
1,2-Dichloroethane						0 / 1	237	119
1,2-Dichloroethene(total)	16	J	18	J	SD-19-02-FW	2 / 2	N/A	17
2-Butanone	160	J	290	J	SD-19-01-FW	2 / 2	N/A	225
Acetone	310	J	310	J	SD-19-01-TR	1 / 1	51	310
Benzene						0 / 1	32	16
Chloroform						0 / 1	79	40
cis-1,2-Dichloroethene	82	J	82	J	SD-19-01-ME	1 / 1	79	82
Ethylbenzene						0 / 1	32	16
Methylene Chloride						0 / 2	51 - 237	72
Naphthalene						0 / 1	237	119
Tetrachloroethene						0 / 1	237	119
trans-1,2-Dichloroethene						0 / 1	237	119
Trichloroethene	42	J	42	J	SD-19-01-ME	1 / 1	79	42
Vinyl chloride						0 / 1	237	119
Xylene, m/p-						0 / 1	79	40
Xylene, o-						0 / 1	79	40
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	400	200
2,2'-oxybis(1-Chloropropane)						0 / 1	400	200
2,4,5-Trichlorophenol						0 / 1	1000	500
2,4,6-Trichlorophenol						0 / 1	400	200
2,4-Dichlorophenol						0 / 1	400	200
2,4-Dimethylphenol						0 / 1	400	200
2,4-Dinitrophenol						0 / 1	1000	500
2,4-Dinitrotoluene						0 / 1	400	200
2,6-Dinitrotoluene						0 / 1	400	200
2-Chloronaphthalene						0 / 1	400	200
2-Chlorophenol						0 / 1	400	200
2-Methylnaphthalene						0 / 2	1 - 400	101.5
2-Methylphenol						0 / 1	400	200
2-Nitroaniline						0 / 1	1000	500
2-Nitrophenol						0 / 1	400	200
3,3'-Dichlorobenzidine						0 / 1	400	200
3-Nitroaniline						0 / 1	400	200
4,6-Dinitro-2-methylphenol						0 / 1	1000	500
4-Bromophenyl-phenylether						0 / 1	400	200
4-Chloro-3-methylphenol						0 / 1	400	200
4-Chloroaniline						0 / 1	400	200
4-Chlorophenyl-phenyl ether						0 / 1	400	200
4-Nitroaniline						0 / 1	1000	500
4-Nitrophenol						0 / 1	1000	500
Acenaphthene	3	J	3	J	SD-19-01-ME	1 / 2	1 - 400	101.5
Acenaphthylene	1	J	1	J	SD-19-01-ME	1 / 2	1 - 400	100.5
Acetophenone						0 / 1	400	200
Anthracene	18	J	18	J	SD-19-01-ME	1 / 2	67 - 400	109
Atrazine						0 / 1	400	200
Benzaldehyde						0 / 1	400	200
Benzo(a)anthracene	130	J	245	J	SD-19-01-FW	3 / 4	67 - 400	193.75
Benzo(a)pyrene	160	J	295	J	SD-19-01-FW	4 / 4	67 - 400	233.75
Benzo(b)fluoranthene	290	J	935	J	SD-19-01-FW	4 / 4	67 - 400	583.75
Benzo(g,h,i)perylene	120	J	120	J	SD-19-01-ME	1 / 2	67 - 400	160
Benzo(k)fluoranthene	200	J	910	J	SD-19-01-FW	4 / 4	67 - 400	547.5
Bis(2-Chloroethoxy)methane						0 / 1	400	200
Bis(2-Chloroethyl)ether						0 / 1	400	200
bis(2-Ethylhexyl)phthalate	290	J	570	J	SD-19-01-FW	2 / 3	400	353.3333333
Butylbenzylphthalate						0 / 1	400	200
Caprolactam						0 / 1	400	200

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TABLE 2-77
SEDIMENT DATA SUMMARY - STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Carbazole						0 / 1	400	200
Chrysene	210	J	365	J	SD-19-01-FW	4 / 4	67 - 400	276.25
Dibenz(a,h)anthracene	46	J	46	J	SD-19-01-ME	1 / 2	67 - 400	123
Dibenzofuran						0 / 1	400	200
Diethylphthalate						0 / 1	400	200
Dimethylphthalate						0 / 1	400	200
Di-n-Butylphthalate						0 / 1	400	200
Di-n-octylphthalate						0 / 1	400	200
Fluoranthene	280	J	510	J	SD-19-01-FW	4 / 4	67 - 400	405
Fluorene	14	J	14	J	SD-19-01-ME	1 / 2	67 - 400	107
Hexachlorobenzene						0 / 1	400	200
Hexachlorobutadiene sv						0 / 1	400	200
Hexachlorocyclopentadiene						0 / 1	400	200
Hexachloroethane						0 / 1	400	200
Indeno(1,2,3-cd)pyrene	140	J	180	J	SD-19-01-FW	2 / 3	67 - 400	173.3333333
Isophorone						0 / 1	400	200
Naphthalene	12	J	12	J	SD-19-01-ME	1 / 2	67 - 400	106
Nitrobenzene						0 / 1	400	200
N-Nitroso-di-n-propylamine						0 / 1	400	200
N-Nitrosodiphenylamine						0 / 1	400	200
Pentachlorophenol						0 / 1	1000	500
Phenanthrene	160	J	160	J	SD-19-01-ME	1 / 2	67 - 400	180
Phenol						0 / 1	400	200
Pyrene	270	J	415	J	SD-19-01-FW	4 / 4	67 - 400	341.25
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	0.33	0.17
4,4'-DDD	2.5	J	11	J	SD-19-03-FW	4 / 5	0.33 - 3.1	6.3
4,4'-DDE	1.6	J	20	J	SD-19-03-FW	5 / 5	0.33 - 3.1	8
4,4'-DDT	1.95	J	3.4	J	SD-19-02-FW	3 / 5	0.33 - 3.1	1.8
Aldrin	0.67	J	0.67	J	SD-19-01-FW	1 / 3	0.16 - 1.6	0.52
alpha-BHC	0.47	J	0.47	J	SD-19-02-FW	1 / 3	0.16 - 1.6	0.45
alpha-Chlordane	0.98	J	4.65	J	SD-19-01-FW	4 / 5	0.16 - 1.6	2.6
Aroclor 1016						0 / 2	3.3 - 31	8.6
Aroclor 1221						0 / 2	6.6 - 63	17.4
Aroclor 1232						0 / 2	3.3 - 31	8.6
Aroclor 1242						0 / 2	3.3 - 31	8.6
Aroclor 1248	35	J	35	J	SD-19-01-ME	1 / 2	3.3 - 31	25
Aroclor 1254						0 / 2	3.3 - 31	8.6
Aroclor 1260	11		11		SD-19-01-ME	1 / 2	3.3 - 31	13
beta-BHC	2.2	J	2.35	J	SD-19-01-FW	2 / 4	0.16 - 1.6	1.4
delta-BHC						0 / 2	0.16 - 1.6	0.440
Dieldrin	1.8	J	4.85	J	SD-19-01-FW	4 / 5	0.33 - 3.1	2.9
Endosulfan I	0.44	J	1.065	J	SD-19-01-FW	3 / 4	0.16 - 1.6	0.76
Endosulfan II						0 / 2	0.33 - 3.1	0.86
Endosulfan Sulfate						0 / 2	0.33 - 3.1	0.86
Endrin	0.92	J	5.05	J	SD-19-01-FW	4 / 5	0.33 - 3.1	2.5
Endrin aldehyde	1.6	J	2.4	J	SD-19-03-FW	2 / 4	0.33 - 3.1	1.4
Endrin Ketone						0 / 2	0.33 - 3.1	0.86
gamma-BHC (Lindane)						0 / 2	0.16 - 1.6	0.44
gamma-Chlordane	0.59	J	4.8	J	SD-19-01-FW	4 / 5	0.16 - 1.6	2.7

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TABLE 2-77
SEDIMENT DATA SUMMARY - STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Heptachlor						0 / 2	0.16 - 1.6	0.440
Heptachlor Epoxide						0 / 2	0.16 - 1.6	0.440
Methoxychlor						0 / 2	1.6 - 16	4.40
Toxaphene						0 / 2	16 - 160	44.0
Metals - mg/Kg								
Aluminum	6240	J	19750	J	SD-19-01-FW	5 / 5	6 - 9.14	11190
Antimony	3.9	J	23.15	J	SD-19-01-FW	5 / 5	0.46 - 0.74	12
Arsenic	180	J	4250		SD-19-01-TR	5 / 5	0.38 - 1	2050
Barium	40.1	J	205		SD-19-01-TR	5 / 5	0.031 - 0.4	98
Beryllium	0.68	J	2.9		SD-19-01-ME	4 / 4	0.047 - 0.2	1.6
Cadmium	7.4		18.9	J	SD-19-03-FW	5 / 5	0.063 - 0.6	12
Calcium	4120		13400	J	SD-19-02-FW	5 / 5	2.14 - 2.8	8905
Chromium	93.7	J	2335	J	SD-19-01-FW	5 / 5	0.094 - 1	1012
Cobalt	12.8	J	45.05	J	SD-19-01-FW	5 / 5	0.36 - 0.64	26
Copper	98.6	J	1330	J	SD-19-01-FW	5 / 5	0.14 - 0.44	636
Iron	14400	J	258000		SD-19-01-TR	5 / 5	0.98 - 1.4	109020
Lead	35.8	J	639	J	SD-19-01-FW	5 / 5	0.46 - 0.6	281
Magnesium	850	J	1945	J	SD-19-01-FW	5 / 5	1.4 - 15.18	1329
Manganese	412	J	2020		SD-19-01-TR	5 / 5	0.031 - 0.24	990
Mercury	0.48	J	7.1	J	SD-19-01-FW	4 / 5	0.0048 - 0.11	2.0
Nickel	11.1	J	33.55	J	SD-19-01-FW	4 / 5	0.25 - 0.8	16
Potassium	275	J	650.5	J	SD-19-01-FW	3 / 4	4.6 - 342	383
Selenium	2.5	J	13.05	J	SD-19-01-FW	4 / 5	0.69 - 1	6.2
Silver						0 / 2	0.016 - 1	0.280
Sodium	368	J	458	J	SD-19-02-FW	3 / 5	0.38 - 706	349
Thallium						0 / 2	0.074 - 1.5	0.65
Vanadium	10.5	J	92.65	J	SD-19-01-FW	5 / 5	0.13 - 0.64	42
Zinc	1080		2960	J	SD-19-01-FW	5 / 5	0.28 - 1.7	1918
AVS-SEM - mg/Kg								
Arsenic	39	J	39	J	SD-19-01-ME	1 / 1	N/A	39
Cadmium	7.4		18		SD-19-03-FW	4 / 5	5.6	9.5
Copper	24		1540	J	SD-19-03-FW	5 / 5	N/A	686
Lead	124		548	J	SD-19-03-FW	5 / 5	N/A	351
Mercury	0.020	J	0.050	J	SD-19-03-FW	2 / 4	0.01	0.020
Nickel	0.80		334	J	SD-19-02-FW	4 / 5	220	142
SEM/AVS Ratio	0.87		4.0		SD-19-01-TR	5 / 5	N/A	2.1
Sulfide	181		1887		SD-19-01-FW	5 / 5	N/A	921
Zinc	629	J	2210	J	SD-19-02-FW	5 / 5	N/A	1597
Total Combustible Organics (mg/Kg)	323500		686000	J	SD-19-01-ME	4 / 4	2000	438125
Total Organic Carbon (mg/Kg)	290000	J	290000	J	SD-19-01-TR	1 / 1	250	290000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-78
SEDIMENT DATA SUMMARY - STATION 20
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	46	23
1,1,1-Trichloroethane						0 / 1	343	172
1,1,2,2-Tetrachloroethane						0 / 1	114	57
1,1,2-Trichloroethane						0 / 1	114	57
1,1-Dichloroethane						0 / 1	343	172
1,1-Dichloroethene						0 / 1	343	172
1,2-Dichloroethane						0 / 1	343	172
1,2-Dichloroethene(total)	15	J	15	J	SD-20-01-FW	1 / 1	N/A	15
2-Butanone	107.5	J	107.5	J	SD-20-01-FW	1 / 1	N/A	108
Acetone	94	J	590	J	SD-20-01-FW	2 / 2	N/A	342
Benzene						0 / 1	46	23
Carbon Disulfide	19	J	19	J	SD-20-01-FW	1 / 1	N/A	19
Chloroform						0 / 1	114	57
cis-1,2-Dichloroethene	562	J	562	J	SD-20-01-ME	1 / 1	114	562
Ethylbenzene						0 / 1	46	23
Methylene chloride						0 / 1	343	172
Naphthalene						0 / 1	343	172
Tetrachloroethene						0 / 1	790	395
trans-1,2-Dichloroethene						0 / 1	343	172
Trichloroethene	2025	J	2025	J	SD-20-01-ME	1 / 1	114	2025
Vinyl chloride						0 / 1	343	172
Xylene, m/p-						0 / 1	114	57
Xylene, o-						0 / 1	114	57
SVOCs - ug/Kg								
2-Methylnaphthalene	13	J	13	J	SD-20-01-ME	1 / 1	1	13
Acenaphthene	6	J	6	J	SD-20-01-ME	1 / 1	1	6.0
Acenaphthylene	6	J	6	J	SD-20-01-ME	1 / 1	1	6.0
Anthracene	26	J	26	J	SD-20-01-ME	1 / 1	67	26
Benzo(a)anthracene	210		1100	J	SD-20-02-FW	3 / 3	67	770
Benzo(a)pyrene	290	J	1200	J	SD-20-02-FW	3 / 3	67	740
Benzo(b)fluoranthene	330		3700	J	SD-20-02-FW	4 / 4	67	2161
Benzo(g,h,i)perylene	210	J	210	J	SD-20-01-ME	1 / 1	67	210
Benzo(k)fluoranthene	370		370		SD-20-01-ME	1 / 1	67	370
bis(2-Ethylhexyl)phthalate	2050	J	5900	J	SD-20-02-FW	3 / 3	N/A	3483
Chrysene	400		1500	J	SD-20-03-FW	3 / 3	67	1100
Dibenz(a,h)anthracene	97	J	97	J	SD-20-01-ME	1 / 1	67	97
Fluoranthene	720		3000	J	SD-20-02-FW	4 / 4	67	1848
Fluorene	36	J	36	J	SD-20-01-ME	1 / 1	1	36
Indeno(1,2,3-cd)pyrene	210	J	830	J	SD-20-02-FW	2 / 2	67	520
Naphthalene	14	J	14	J	SD-20-01-ME	1 / 1	67	14
Phenanthrene	240		890	J	SD-20-02-FW	3 / 3	67	593
Pyrene	540	J	2500	J	SD-20-02-FW	3 / 3	67	1480
PCBs/Pesticides - ug/Kg								
4,4'-DDD	8.4	J	32	J	SD-20-02-FW	4 / 4	0.31	20
4,4'-DDE	4.4		32	J	SD-20-02-FW	4 / 4	0.31	20
4,4'-DDT	4.6	J	4.6	J	SD-20-01-ME	1 / 1	0.31	4.6
alpha-BHC						0 / 1	0.16	0.080
alpha-Chlordane	12	J	49	J	SD-20-03-FW	4 / 4	0.16	29
Aroclor 1016						0 / 1	3.1	1.6
Aroclor 1221						0 / 1	6.2	3.1
Aroclor 1232						0 / 1	3.1	1.6
Aroclor 1242						0 / 1	3.1	1.6
Aroclor 1248	28	J	28	J	SD-20-01-ME	1 / 1	3.1	28
Aroclor 1254						0 / 1	3.1	1.6
Aroclor 1260	79		79		SD-20-01-ME	1 / 1	3.1	79
beta-BHC						0 / 1	0.16	0.080
delta-BHC						0 / 1	0.16	0.080
Dieldrin	0.7	J	0.7	J	SD-20-01-ME	1 / 1	0.31	0.70

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TABLE 2-78
SEDIMENT DATA SUMMARY - STATION 20
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Endosulfan I	38	J	42	J	SD-20-03-FW	2 / 3	0.16	27
Endosulfan II						0 / 1	0.31	0.16
Endosulfan Sulfate						0 / 1	0.31	0.16
Endrin	0.97	J	0.97	J	SD-20-01-ME	1 / 1	0.31	1.0
Endrin Aldehyde	1.3	J	1.3	J	SD-20-01-ME	1 / 1	0.31	1.3
Endrin Ketone						0 / 1	0.31	0.16
gamma-BHC (Lindane)						0 / 1	0.16	0.08
gamma-Chlordane	6.8	J	11.9	J	SD-20-01-FW	2 / 2	0.16	9.4
Heptachlor Epoxide	0.49	J	0.49	J	SD-20-01-ME	1 / 1	0.16	0.49
Methoxychlor						0 / 1	1.6	0.80
Toxaphene						0 / 1	16	8.0
Metals - mg/Kg								
Aluminum	13500	J	29700	J	SD-20-03-FW	4 / 4	3.6	22113
Antimony	3.8	J	5.4	J	SD-20-03-FW	4 / 4	0.27	4.4
Arsenic	236		321	J	SD-20-02-FW	4 / 4	0.22	283
Barium	44.2		151	J	SD-20-02-FW	4 / 4	0.019	91
Beryllium	1.2	J	2	J	SD-20-03-FW	4 / 4	0.028	1.6
Cadmium	13.15	J	18.5	J	SD-20-03-FW	4 / 4	0.35	16
Calcium	9870	J	13150	J	SD-20-01-FW	4 / 4	1.7	11055
Chromium	1090	J	1860	J	SD-20-02-FW	4 / 4	0.056	1463
Cobalt	25.9	J	46.3	J	SD-20-03-FW	4 / 4	0.38	35
Copper	888	J	1075	J	SD-20-01-FW	4 / 4	0.084	1013
Iron	18500	J	43800	J	SD-20-02-FW	4 / 4	0.58	30325
Lead	449.5	J	1200	J	SD-20-03-FW	4 / 4	0.27	770
Magnesium	1530		6720	J	SD-20-03-FW	4 / 4	3.6	4145
Manganese	511	J	901.5	J	SD-20-01-FW	4 / 4	0.019	729
Mercury	1	J	3.3	J	SD-20-03-FW	4 / 4	0.0051	2.1
Nickel	27.5	J	57.7	J	SD-20-03-FW	4 / 4	0.15	43
Potassium	454	J	2000	J	SD-20-03-FW	4 / 4	2.8	1176
Selenium	3.3	J	11.1	J	SD-20-01-FW	4 / 4	0.054	7.1
Silver	0.29	J	1.6	J	SD-20-02-FW	2 / 2	0.01	0.95
Sodium	612		979	J	SD-20-02-FW	4 / 4	0.22	853
Thallium	4.4	J	4.4	J	SD-20-03-FW	1 / 2	0.039 - 0.44	2.3
Vanadium	38.2		115	J	SD-20-03-FW	4 / 4	0.075	77
Zinc	1670	J	3470	J	SD-20-02-FW	4 / 4	0.17	2725
AVS-SEM - mg/Kg								
Arsenic	84	J	84	J	SD-20-01-ME	1 / 1	N/A	84
Cadmium	10	J	17	J	SD-20-01-FW	4 / 4	N/A	14
Copper	82	J	619	J	SD-20-03-FW	4 / 4	N/A	461
Lead	296	J	796		SD-20-03-FW	4 / 4	N/A	552
Mercury	0.040		0.040		SD-20-03-FW	1 / 4	0.01 - 10.03	1.3
Nickel	42	J	42	J	SD-20-01-ME	1 / 4	41.4 - 202	58
SEM/AVS Ratio	1.4		38		SD-20-03-FW	4 / 4	N/A	11
Sulfide	42		851	J	SD-20-02-FW	4 / 4	N/A	570
Zinc	1358	J	2830	J	SD-20-02-FW	4 / 4	N/A	2032
Total Combustible Organics (mg/Kg)	234000		441000	J	SD-20-01-ME	4 / 4	2000	321000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-79
SEDIMENT DATA SUMMARY - STATION 21
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	31	16
1,1,1-Trichloroethane						0 / 1	75	38
1,1,2,2-Tetrachloroethane						0 / 1	75	38
1,1,2-Trichloroethane						0 / 1	75	38
1,1-Dichloroethane						0 / 1	225	113
1,1-Dichloroethene						0 / 1	225	113
1,2-Dichloroethane						0 / 1	225	113
Benzene	22	J	22	J	SD-21-01-ME	1 / 1	225	22
Chloroform						0 / 1	75	38
cis-1,2-Dichloroethene						0 / 1	76	38
Ethylbenzene						0 / 1	30	15
Methylene chloride						0 / 1	225	113
Naphthalene	208.25	J	208.25	J	SD-21-01-ME	1 / 1	75	208
Tetrachloroethene						0 / 1	75	38
trans-1,2-Dichloroethene						0 / 1	225	113
Trichloroethene	19	J	19	J	SD-21-01-ME	1 / 1	30	19
Vinyl chloride						0 / 1	225	113
Xylene, m/p-						0 / 1	30	15
Xylene, o-						0 / 1	75	38
SVOCs - ug/Kg								
2-Methylnaphthalene	140		140		SD-21-01-ME	1 / 1	67	140
Acenaphthene	67	J	67	J	SD-21-01-ME	1 / 1	67	67
Acenaphthylene	38	J	38	J	SD-21-01-ME	1 / 1	67	38
Anthracene	420		420		SD-21-01-ME	1 / 1	67	420
Benzo(a)anthracene	390		390		SD-21-01-ME	1 / 1	67	390
Benzo(a)pyrene	890	J	890	J	SD-21-01-ME	1 / 1	67	890
Benzo(b)fluoranthene	740	J	3100	J	SD-21-01-FW	3 / 3	67	1607
Benzo(g,h,i)perylene	710	J	710	J	SD-21-01-ME	1 / 1	67	710
Benzo(k)fluoranthene						0 / 1	67	34
bis(2-Ethylhexyl)phthalate	990	J	3100	J	SD-21-01-FW	3 / 3	N/A	2397
Chrysene	940		940		SD-21-01-ME	1 / 1	67	940
Dibenz(a,h)anthracene	240	J	240	J	SD-21-01-ME	1 / 1	67	240
Fluoranthene	970	J	2500	J	SD-21-01-FW	3 / 3	67	1623
Fluorene	240		240		SD-21-01-ME	1 / 1	67	240
Indeno(1,2,3-cd)pyrene	620	J	620	J	SD-21-01-ME	1 / 1	67	620
Naphthalene	1300	J	2500	J	SD-21-02-FW	2 / 2	67	1900
Phenanthrene	600		600		SD-21-01-ME	1 / 1	67	600
Pyrene	620	J	2400	J	SD-21-01-FW	3 / 3	67	1440
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	3.6	1.8
4,4'-DDD	27	J	35	J	SD-21-01-ME	3 / 3	3.2	30
4,4'-DDE	22		36	J	SD-21-01-FW	3 / 3	3.2	31
4,4'-DDT	4.4	J	4.4	J	SD-21-01-ME	1 / 1	3.2	4.4
Aldrin						0 / 1	1.6	0.80
alpha-BHC						0 / 1	1.6	0.80
alpha-Chlordane	29		62	J	SD-21-03-FW	3 / 3	1.6	50
Aroclor 1016						0 / 1	3.2	1.6
Aroclor 1221						0 / 1	6.3	3.2
Aroclor 1232						0 / 1	3.2	1.6
Aroclor 1242						0 / 1	3.2	1.6
Aroclor 1248	240	J	240	J	SD-21-01-ME	1 / 1	3.2	240
Aroclor 1254						0 / 1	3.2	1.6
Aroclor 1260	420		420		SD-21-01-ME	1 / 1	3.2	420
beta-BHC						0 / 1	1.6	0.80

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TABLE 2-79
SEDIMENT DATA SUMMARY - STATION 21
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	1.8	J	1.8	J	SD-21-01-ME	1 / 1	1.6	1.8
Dieldrin						0 / 1	3.2	1.6
Endosulfan I	14	J	68	J	SD-21-01-FW	3 / 4	1.6	35
Endosulfan II	5.2		5.2		SD-21-01-ME	1 / 1	3.2	5.2
Endosulfan Sulfate						0 / 1	3.2	1.6
Endrin	3.6	J	16	J	SD-21-01-FW	2 / 2	3.2	9.8
Endrin Aldehyde	9	J	9	J	SD-21-01-ME	1 / 1	3.2	9.0
Endrin Ketone						0 / 1	3.2	1.6
gamma-BHC (Lindane)						0 / 1	1.6	0.80
gamma-Chlordane	19	J	47	J	SD-21-03-FW	2 / 2	1.6	33
Heptachlor						0 / 1	1.6	0.80
Heptachlor Epoxide						0 / 1	1.6	0.80
Methoxychlor						0 / 1	16	8.0
Toxaphene						0 / 1	160	80
Metals - mg/Kg								
Aluminum	8890	J	18400	J	SD-21-01-FW	4 / 4	3.6	13648
Antimony	2	J	2	J	SD-21-01-ME	1 / 1	0.27	2.0
Arsenic	121	J	258		SD-21-01-ME	4 / 4	0.22	175
Barium	55.3	J	181		SD-21-01-ME	4 / 4	0.019	128
Beryllium	0.68	J	1.1	J	SD-21-01-FW	4 / 4	0.028	0.90
Cadmium	14.1		20.5	J	SD-21-02-FW	4 / 4	0.36	18
Calcium	4920	J	8290		SD-21-01-ME	4 / 4	1.7	6460
Chromium	489	J	5590	J	SD-21-01-ME	4 / 4	0.056	2400
Cobalt	12.8	J	29.9	J	SD-21-01-FW	4 / 4	0.38	23
Copper	324	J	613		SD-21-01-ME	4 / 4	0.084	457
Iron	11300	J	28000	J	SD-21-01-FW	4 / 4	0.58	21950
Lead	187	J	722	J	SD-21-01-FW	4 / 4	0.27	527
Magnesium	1250	J	4710	J	SD-21-01-FW	4 / 4	3.6	3115
Manganese	101	J	268		SD-21-01-ME	4 / 4	0.019	208
Mercury	0.15		18.2	J	SD-21-03-FW	4 / 4	0.0051	10
Nickel	17.9	J	46.8	J	SD-21-01-FW	4 / 4	0.15	33
Potassium	245	J	1330	J	SD-21-01-FW	4 / 4	2.8	789
Selenium	3	J	3.5	J	SD-21-01-FW	3 / 3	0.054	3.2
Silver	0.3	J	0.3	J	SD-21-01-ME	1 / 1	0.01	0.30
Sodium	796		1240	J	SD-21-01-FW	4 / 4	0.22	1006
Thallium						0 / 1	0.44	0.22
Vanadium	26.6	J	77.3	J	SD-21-01-FW	4 / 4	0.075	54
Zinc	2350	J	4940	J	SD-21-01-ME	4 / 4	0.17	3563
AVS-SEM - mg/Kg								
Arsenic	14	J	14	J	SD-21-01-ME	1 / 1	N/A	14
Cadmium	8.8	J	15	J	SD-21-02-FW	3 / 4	10.08	11
Copper	226	J	348	J	SD-21-01-FW	3 / 4	3.175	223
Lead	276	J	548	J	SD-21-01-FW	4 / 4	N/A	398
Mercury	0.080	J	0.18	J	SD-21-01-FW	3 / 4	10.03	1.3
Nickel	10	J	10	J	SD-21-01-ME	1 / 4	21.4 - 34.9	12
SEM/AVS Ratio	0.99		18		SD-21-03-FW	4 / 4	N/A	8.5
Sulfide	58	J	899		SD-21-01-ME	4 / 4	N/A	402
Zinc	1694	J	3620	J	SD-21-02-FW	4 / 4	N/A	2556
Total Combustible Organics (mg/Kg)	344000	J	344000	J	SD-21-01-ME	1 / 1	2000	344000
Total Organic Carbon (mg/Kg)	244000		441000		SD-21-02-FW	3 / 3	N/A	324333

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-80
SEDIMENT DATA SUMMARY - STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 1	27	14
1,1,1-Trichloroethane						0 / 3	26 - 205	64
1,1,2,2-Tetrachloroethane						0 / 2	26 - 68	24
1,1,2-Trichloroethane						0 / 2	26 - 68	24
1,1-Dichloroethane						0 / 2	26 - 205	58
1,1-Dichloroethene						0 / 2	26 - 205	58
1,2-Dichloroethane						0 / 2	26 - 205	58
1,2-Dichloroethene(total)						0 / 1	26	13
1,2-Dichloropropane						0 / 1	26	13
2-Butanone						0 / 1	26	13
2-Hexanone						0 / 1	26	13
4-Methyl-2-pentanone						0 / 1	26	13
Acetone	2400	J	2400	J	SD-22-01-TR	1 / 2	26 - 150	1207
Benzene						0 / 2	26 - 27	13
Bromodichloromethane						0 / 1	26	13
Bromoform						0 / 1	26	13
Bromomethane						0 / 1	26	13
Carbon Disulfide						0 / 1	26	13
Carbon Tetrachloride						0 / 1	26	13
Chlorobenzene						0 / 1	26	13
Chloroethane						0 / 1	26	13
Chloroform						0 / 2	26 - 68	24
Chloromethane						0 / 1	26	13
cis-1,2-Dichloroethene	73	J	73	J	SD-22-02-ME	1 / 1	68	73
cis-1,3-Dichloropropene						0 / 1	26	13
Dibromochloromethane						0 / 1	26	13
Ethylbenzene						0 / 2	26 - 27	13
Methylene Chloride	28	J	100	J	SD-22-03-FW	2 / 4	150 - 205	76
Naphthalene						0 / 1	205	103
Styrene						0 / 1	26	13
Tetrachloroethene	120		3164		SD-22-02-ME	4 / 4	205	1131
Toluene						0 / 1	26	13
trans-1,2-Dichloroethene						0 / 1	205	103
trans-1,3-Dichloropropene						0 / 1	26	13
Trichloroethene	21	J	803		SD-22-02-ME	3 / 4	26 - 68	259
Vinyl Chloride						0 / 2	26 - 205	58
Xylene, m/p-						0 / 1	68	34
Xylene, o-						0 / 1	68	34
Xylenes (total)						0 / 1	26	13
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	540	270
1,2,4-Trichlorobenzene sv						0 / 1	870	435
1,2-Dichlorobenzene						0 / 1	870	435
1,3-Dichlorobenzene						0 / 1	870	435
1,4-Dichlorobenzene						0 / 1	870	435
2,2'-oxybis(1-Chloropropane)						0 / 2	540 - 870	353
2,4,5-Trichlorophenol						0 / 2	1400 - 2100	875
2,4,6-Trichlorophenol						0 / 2	540 - 870	353
2,4-Dichlorophenol						0 / 2	540 - 870	353
2,4-Dimethylphenol						0 / 2	540 - 870	353
2,4-Dinitrophenol						0 / 2	1400 - 2100	875
2,4-Dinitrotoluene						0 / 2	540 - 870	353
2,6-Dinitrotoluene						0 / 2	540 - 870	353
2-Chloronaphthalene						0 / 2	540 - 870	353
2-Chlorophenol						0 / 2	540 - 870	353
2-Methylnaphthalene	13	J	13	J	SD-22-02-ME	1 / 3	1 - 870	239
2-Methylphenol						0 / 2	540 - 870	353
2-Nitroaniline						0 / 2	1400 - 2100	875
2-Nitrophenol						0 / 2	540 - 870	353
3,3'-Dichlorobenzidine						0 / 2	540 - 870	353
3-Nitroaniline						0 / 2	540 - 2100	660
4,6-Dinitro-2-methylphenol						0 / 2	1400 - 2100	875
4-Bromophenyl-phenylether						0 / 2	540 - 870	353
4-Chloro-3-methylphenol						0 / 2	540 - 870	353
4-Chloroaniline						0 / 2	540 - 870	353

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TABLE 2-80
SEDIMENT DATA SUMMARY - STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
4-Chlorophenyl-phenyl ether						0 / 2	540 - 870	353
4-Methylphenol						0 / 1	870	435
4-Nitroaniline						0 / 2	1400 - 2100	875
4-Nitrophenol						0 / 2	1400 - 2100	875
Acenaphthene	11	J	11	J	SD-22-02-ME	1 / 3	1 - 870	239
Acenaphthylene	12	J	12	J	SD-22-02-ME	1 / 3	1 - 870	239
Acetophenone						0 / 1	540	270
Anthracene	46	J	46	J	SD-22-02-ME	1 / 3	67 - 870	250
Atrazine						0 / 1	540	270
Benzaldehyde						0 / 1	540	270
Benzo(a)anthracene	300		300		SD-22-02-ME	1 / 3	67 - 870	335
Benzo(a)pyrene	200		200		SD-22-02-ME	1 / 2	67 - 870	318
Benzo(b)fluoranthene	430	J	440		SD-22-02-ME	2 / 4	67 - 870	394
Benzo(g,h,i)perylene	190		190		SD-22-02-ME	1 / 3	67 - 870	298
Benzo(k)fluoranthene	290		540	J	SD-22-01-TR	2 / 3	67 - 870	422
bis(2-Chloroethoxy)methane						0 / 2	540 - 870	353
bis(2-Chloroethyl)ether						0 / 2	540 - 870	353
bis(2-Ethylhexyl)phthalate						0 / 2	540 - 870	353
Butylbenzylphthalate						0 / 2	540 - 870	353
Caprolactam						0 / 1	540	270
Carbazole						0 / 2	540 - 870	353
Chrysene	400		400		SD-22-02-ME	1 / 3	67 - 870	368
Dibenz(a,h)anthracene	44	J	44	J	SD-22-02-ME	1 / 3	67 - 870	250
Dibenzofuran						0 / 2	540 - 870	353
Diethylphthalate						0 / 2	540 - 870	353
Dimethylphthalate						0 / 2	540 - 870	353
Di-n-butylphthalate						0 / 2	540 - 870	353
Di-n-octylphthalate						0 / 2	540 - 870	353
Fluoranthene	260	J	840		SD-22-02-ME	3 / 4	67 - 540	475
Fluorene	26	J	26	J	SD-22-02-ME	1 / 3	1 - 870	244
Hexachlorobenzene						0 / 2	540 - 870	353
Hexachlorobutadiene sv						0 / 2	540 - 870	353
Hexachlorocyclopentadiene						0 / 2	540 - 870	353
Hexachloroethane						0 / 2	540 - 870	353
Indeno(1,2,3-cd)pyrene	220		220		SD-22-02-ME	1 / 3	67 - 870	308
Isophorone						0 / 2	540 - 870	353
Naphthalene	25	J	25	J	SD-22-02-ME	1 / 3	1 - 870	243
Nitrobenzene						0 / 2	540 - 870	353
N-Nitroso-di-n-propylamine						0 / 2	540 - 870	353
N-nitrosodiphenylamine						0 / 2	540 - 870	353
Pentachlorophenol						0 / 2	1400 - 2100	875
Phenanthrene	490		490		SD-22-02-ME	1 / 3	67 - 870	398
Phenol						0 / 2	540 - 870	353
Pyrene	610		610		SD-22-02-ME	1 / 3	67 - 870	438
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 1	0.31	0.16
4,4'-DDD	9.6	J	9.6	J	SD-22-02-ME	1 / 3	0.31 - 8.7	5.4
4,4'-DDE	8.3	J	31		SD-22-02-ME	3 / 4	0.31 - 4.5	18
4,4'-DDT	2.7	J	2.7	J	SD-22-02-ME	1 / 3	0.31 - 8.7	3.1
Aldrin						0 / 3	0.15 - 4.5	1.2
alpha-BHC						0 / 3	0.15 - 4.5	1.2
alpha-Chlordane	1.2	J	1.2	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.5
Aroclor 1016						0 / 3	3.1 - 87	23
Aroclor 1221						0 / 3	6.2 - 180	46
Aroclor 1232						0 / 3	3.1 - 87	23
Aroclor 1242						0 / 3	3.1 - 87	23
Aroclor 1248	8.1	J	8.1	J	SD-22-02-ME	1 / 3	3.1 - 87	25
Aroclor 1254						0 / 3	3.1 - 87	23
Aroclor 1260	29		29		SD-22-02-ME	1 / 3	3.1 - 87	32
beta-BHC						0 / 3	0.15 - 4.5	1.2

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TABLE 2-80
SEDIMENT DATA SUMMARY - STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
delta-BHC	0.16	J	0.16	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.2
Dieldrin	0.38	J	0.38	J	SD-22-02-ME	1 / 3	0.31 - 8.7	2.3
Endosulfan I	0.18	J	4.4	J	SD-22-03-FW	4 / 5	0.15 - 2.3	2.5
Endosulfan II	0.48	J	0.48	J	SD-22-02-ME	1 / 3	0.31 - 8.7	2.4
Endosulfan sulfate						0 / 3	0.31 - 8.7	2.3
Endrin						0 / 3	0.31 - 8.7	2.3
Endrin aldehyde	3.3	J	3.3	J	SD-22-02-ME	1 / 3	0.31 - 8.7	3.3
Endrin ketone						0 / 3	0.31 - 8.7	2.3
gamma-BHC (Lindane)						0 / 3	0.15 - 4.5	1.2
gamma-Chlordane	0.19	J	0.19	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.2
Heptachlor						0 / 3	0.15 - 4.5	1.2
Heptachlor epoxide	0.29	J	4.9	J	SD-22-01-FW	3 / 4	0.15 - 2.3	2.2
Methoxychlor						0 / 3	1.5 - 45	12
Toxaphene						0 / 3	15 - 450	116
Metals - mg/Kg								
Aluminum	2560		13200		SD-TT-22-03	8 / 8	3.6 - 9.14	4711
Antimony	0.94	J	329	J	SD-TT-22-01	5 / 6	0.27 - 2.1	70
Arsenic	5.2	J	87.3	J	SD-TT-22-01	5 / 6	0.23 - 3.7	21
Barium	20.3		51.4	J	SD-22-03-FW	8 / 8	0.019 - 0.4	41
Beryllium	0.2		1.1	J	SD-22-01-FW	8 / 8	0.028 - 0.2	0.49
Cadmium	0.2		1.7	J	SD-TT-22-02	7 / 7	0.0049 - 0.6	1.0
Calcium	4480		30500	J	SD-22-03-FW	8 / 8	1.7 - 2.14	16569
Chromium	7.1	J	85.3	J	SD-TT-22-02	8 / 8	0.056 - 1	25
Cobalt	1.3		7		SD-TT-22-03	8 / 8	0.36 - 0.39	2.8
Copper	9.6	J	37.5	J	SD-TT-22-03	8 / 8	0.085 - 0.44	23
Cyanide						0 / 1	1.3	0.65
Iron	2310	J	11900		SD-TT-22-03	8 / 8	0.58 - 1.4	4245
Lead	383	J	41000	J	SD-TT-22-01	8 / 8	0.27 - 0.6	6765
Magnesium	735		4460		SD-TT-22-03	8 / 8	3.6 - 15.18	1673
Manganese	34.4	J	194	J	SD-TT-22-03	8 / 8	0.019 - 0.24	71
Mercury	0.05	J	0.5		SD-22-02-ME	4 / 6	0.0052 - 0.1	0.15
Nickel	3.9		18		SD-TT-22-03	8 / 8	0.15 - 0.8	7.8
Potassium	134	J	1360		SD-TT-22-03	8 / 8	2.8 - 4.38	425
Selenium	1.9	J	8.1	J	SD-22-02-ME	6 / 8	0.054 - 2	3.7
Silver	0.22	J	3.3	J	SD-TT-22-01	3 / 4	0.01 - 1	1.2
Sodium	204		1320		SD-22-01-TR	8 / 8	0.23 - 98.04	697
Thallium						0 / 6	0.039 - 1.2	0.43
Vanadium	8.5		50.1		SD-TT-22-03	8 / 8	0.075 - 0.64	31
Zinc	23		122	J	SD-TT-22-03	8 / 8	0.17 - 1.7	70
AVS-SEM - mg/Kg								
Arsenic						0 / 1	3.745	1.9
Cadmium	0.23	J	0.59	J	SD-22-01-TR	3 / 5	0.37 - 5.6	0.87
Copper	12		42	J	SD-22-02-FW	3 / 5	17.1 - 44.2	24
Lead	258	J	4227	J	SD-22-02-ME	5 / 5	N/A	1526
Mercury	0.44	J	0.44	J	SD-22-01-TR	1 / 5	0.01 - 10.03	1.1
Nickel	5.4		147	J	SD-22-02-FW	3 / 5	19.9 - 73.2	44
SEM/AVS Ratio	0.64		468		SD-22-02-ME	5 / 5	N/A	95
Sulfide	9.3		173	J	SD-22-01-FW	4 / 5	1.605	65
Zinc	24	J	138	J	SD-22-02-ME	5 / 5	N/A	67
Wet Parameters								
Chromium VI						0 / 1	1.59	0.80
pH	5.95		5.95		SD-TT-22-03	1 / 1	N/A	6.0
Redox Potential	324		324		SD-TT-22-03	1 / 1	N/A	324
Sulfide	52.3	J	52.3	J	SD-TT-22-03	1 / 1	N/A	52
Total Combustible Organics - mg/Kg	693000	J	693000	J	SD-22-02-ME	1 / 1	2000	693000
Total Organic Carbon - mg/Kg	198000		514000		SD-22-03-FW	4 / 4	250	378250

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-81
SEDIMENT DATA SUMMARY - STATION AM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	7500		7500		SD-AM-01	1 / 1	4.2327	7500
Antimony	2	J	2	J	SD-AM-01	1 / 1	0.4233	2
Arsenic	121		121		SD-AM-01	1 / 1	0.4233	121
Barium	58.4		58.4		SD-AM-01	1 / 1	0.4233	58
Beryllium	0.64		0.64		SD-AM-01	1 / 1	0.1693	0.64
Cadmium	3.9		3.9		SD-AM-01	1 / 1	0.1693	3.9
Calcium	3480	J	3480	J	SD-AM-01	1 / 1	8.4654	3480
Chromium	322		322		SD-AM-01	1 / 1	0.4233	322
Cobalt	20.3		20.3		SD-AM-01	1 / 1	0.4233	20.3
Copper	197		197		SD-AM-01	1 / 1	0.4233	197
Cyanide	0.85	J	0.85	J	SD-AM-01	1 / 1	0.2822	0.85
Iron	23400	J	23400	J	SD-AM-01	1 / 1	1.6931	23400
Lead	150		150		SD-AM-01	1 / 1	0.254	150
Magnesium	2010		2010		SD-AM-01	1 / 1	8.4654	2010
Manganese	1140	J	1140	J	SD-AM-01	1 / 1	0.4233	1140
Mercury	1.9		1.9		SD-AM-01	1 / 1	0.0899	1.90
Nickel	18	J	18	J	SD-AM-01	1 / 1	0.4233	18.0
Potassium	497		497		SD-AM-01	1 / 1	16.93	497
Selenium	1.1	J	1.1	J	SD-AM-01	1 / 1	0.8558	1.1
Silver						0 / 1	0.4233	0.21
Sodium	231	J	231	J	SD-AM-01	1 / 1	42.327	231
Thallium	0.44	J	0.44	J	SD-AM-01	1 / 1	0.2568	0.44
Vanadium	26.9		26.9		SD-AM-01	1 / 1	0.4233	27
Zinc	941		941		SD-AM-01	1 / 1	0.4233	941

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-82
SEDIMENT DATA SUMMARY - STATION AS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	15700		18800		SD-AS-02	2 / 2	3.9828 - 4.4604	17250
Antimony	2.15	J	2.9	J	SD-AS-02	2 / 2	0.3983 - 0.446	2.5
Arsenic	111		121		SD-AS-02	2 / 2	0.3983 - 0.446	116
Barium	95.85		109		SD-AS-02	2 / 2	0.3983 - 0.446	102
Beryllium	0.895		1.1		SD-AS-02	2 / 2	0.1593 - 0.1784	1.0
Cadmium	10.6		13.3		SD-AS-02	2 / 2	0.1593 - 0.1784	12
Calcium	5740	J	6120	J	SD-AS-02	2 / 2	7.9655 - 8.9208	5930
Chromium	576.5		918		SD-AS-02	2 / 2	0.3983 - 0.446	747
Cobalt	19.7		21		SD-AS-01	2 / 2	0.3983 - 0.446	20
Copper	444.5		576		SD-AS-02	2 / 2	0.3983 - 0.446	510
Cyanide	1.5	J	3.8	J	SD-AS-01	2 / 2	0.3754 - 0.3951	2.7
Iron	27850	J	29200	J	SD-AS-02	2 / 2	1.5931 - 1.7842	28525
Lead	484		661		SD-AS-02	2 / 2	0.239 - 0.2676	573
Magnesium	4435		5130		SD-AS-02	2 / 2	7.9655 - 8.9208	4783
Manganese	378.5	J	384	J	SD-AS-02	2 / 2	0.3983 - 0.446	381
Mercury	3.05		3.1		SD-AS-02	2 / 2	0.1225 - 0.1251	3.1
Nickel	35	J	39.4	J	SD-AS-02	2 / 2	0.3983 - 0.446	37
Potassium	963.5		1180		SD-AS-02	2 / 2	15.931 - 17.841	1072
Selenium	1.8	J	1.95	J	SD-AS-01	2 / 2	0.7593 - 0.906	1.9
Silver	0.605	J	0.76	J	SD-AS-02	2 / 2	0.3983 - 0.446	0.68
Sodium	462		562		SD-AS-02	2 / 2	39.827 - 44.603	512
Thallium	0.95	J	1.2	J	SD-AS-02	2 / 2	0.2278 - 0.2718	1.1
Vanadium	59		72.6		SD-AS-02	2 / 2	0.3983 - 0.446	66
Zinc	2085		2290		SD-AS-02	2 / 2	0.3983 - 0.446	2188

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-83
SEDIMENT DATA SUMMARY - STATION BW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	15500		19250		SD-BW-01	5 / 5	N/A	17070
Antimony	11.1	J	19.75	J	SD-BW-01	5 / 5	N/A	13.3
Arsenic	656	J	1360	J	SD-BW-03	5 / 5	N/A	840
Barium	81.9		181		SD-BW-02	5 / 5	N/A	139
Beryllium	1.1		1.4		SD-BW-04	5 / 5	N/A	1.3
Cadmium	6		12.2	J	SD-BW-02	5 / 5	N/A	10
Calcium	5210		10200		SD-BW-01	5 / 5	N/A	7472
Chromium	720		2305		SD-BW-01	5 / 5	N/A	1398
Cobalt	23.6		57.5		SD-BW-05	5 / 5	N/A	41
Copper	535		836		SD-BW-01	5 / 5	N/A	662
Iron	54850		189000		SD-BW-03	5 / 5	N/A	116030
Lead	405		570.5		SD-BW-01	5 / 5	N/A	480
Magnesium	3440		4390		SD-BW-04	5 / 5	N/A	3775
Manganese	521		1530	J	SD-BW-03	5 / 5	N/A	1087
Mercury	1.4		3.6		SD-BW-04	5 / 5	N/A	2.4
Nickel	32.6		46.9		SD-BW-05	5 / 5	N/A	38
Potassium	747	J	1160		SD-BW-02	5 / 5	N/A	938
Selenium	5.3	J	11.5	J	SD-BW-03	5 / 5	N/A	8.2
Silver	0.94		2.5		SD-BW-02	5 / 5	N/A	1.7
Sodium	883.5	J	1860	J	SD-BW-04	5 / 5	N/A	1128
Thallium	3.85	J	18.1	J	SD-BW-03	5 / 5	N/A	9.7
Vanadium	65.2		82.9		SD-BW-01	5 / 5	N/A	75
Zinc	1620		3050		SD-BW-05	5 / 5	N/A	1994
Total Organic Carbon								
Total Organic Carbon	138000		177000		SD-BW-02	5 / 5	8130 - 12000	161600

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-84
SEDIMENT DATA SUMMARY - STATION CB-01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4230		21100	J	SD-CB-01-04	10 / 10	N/A	11886
Antimony	0.77	J	4	J	SD-CB-01-07	4 / 10	0.57 - 2	1.2
Arsenic	8.2	J	98.7	J	SD-CB-01-04	10 / 10	N/A	41
Barium	19.35		105		SD-CB-01-10	8 / 10	13.9 - 16.3	40
Beryllium	0.33		2		SD-CB-01-04	10 / 10	N/A	1.0
Cadmium	1.1	J	16.1	J	SD-CB-01-02	10 / 10	N/A	5.2
Calcium	805		13300		SD-CB-01-10	10 / 10	N/A	5875
Chromium	27.5	J	584		SD-CB-01-02	10 / 10	N/A	217
Cobalt	0.79		33.4		SD-CB-01-02	10 / 10	N/A	6.0
Copper	58.1	J	1090	J	SD-CB-01-04	10 / 10	N/A	389
Iron	4250		27200		SD-CB-01-02	10 / 10	N/A	11059
Lead	75	J	648	J	SD-CB-01-02	10 / 10	N/A	317
Magnesium	555		3270		SD-CB-01-02	10 / 10	N/A	1526
Manganese	51.5		1260	J	SD-CB-01-10	10 / 10	N/A	338
Mercury	0.28	J	4.8	J	SD-CB-01-04	10 / 10	N/A	1.5
Nickel	4		31.8	J	SD-CB-01-02	10 / 10	N/A	9.2
Potassium	121		785		SD-CB-01-10	8 / 10	219 - 648	291
Selenium	1.2	J	8.3	J	SD-CB-01-04	10 / 10	N/A	3.7
Silver						0 / 10	0.12 - 1	0.33
Sodium	278		2160		SD-CB-01-02	10 / 10	N/A	933
Thallium	0.425	J	3.1		SD-CB-01-04	5 / 10	0.58 - 1	1.0
Vanadium	21.9		114		SD-CB-01-07	10 / 10	N/A	54
Zinc	58.4		1190		SD-CB-01-02	10 / 10	N/A	422
Wet Parameters - mg/Kg								
pH	5.785		5.98		SD-CB-01-09	2 / 2	N/A	6
Redox Potential	281.5		324		SD-CB-01-09	2 / 2	N/A	303
Sulfide	91.2	J	123	J	SD-CB-01-09	2 / 2	N/A	107

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-85
SEDIMENT DATA SUMMARY - STATION CB-02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	1865		8170		SD-CB-02-01	10 / 10	N/A	4439
Antimony	0.89	J	2	J	SD-CB-02-03	10 / 10	N/A	1.5
Arsenic	7.55	J	56.2	J	SD-CB-02-06	10 / 10	N/A	27
Barium	13.6		389		SD-CB-02-07	10 / 10	N/A	79
Beryllium	0.16		0.49		SD-CB-02-01	10 / 10	N/A	0.29
Cadmium	0.91	J	5.8	J	SD-CB-02-01	10 / 10	N/A	3.1
Calcium	1320		11650		SD-CB-02-09	10 / 10	N/A	4363
Chromium	17.9	J	248	J	SD-CB-02-01	10 / 10	N/A	106
Cobalt	1.2		7.45		SD-CB-02-09	10 / 10	N/A	4.2
Copper	38.3	J	168		SD-CB-02-01	10 / 10	N/A	75
Iron	3960		9640		SD-CB-02-05	10 / 10	N/A	5914
Lead	67	J	342	J	SD-CB-02-07	10 / 10	N/A	119
Magnesium	460		2020		SD-CB-02-01	10 / 10	N/A	1137
Manganese	34.5	J	108	J	SD-CB-02-05	10 / 10	N/A	56
Mercury	0.12		0.58		SD-CB-02-01	10 / 10	N/A	0.24
Nickel	2.1		12.8	J	SD-CB-02-04	10 / 10	N/A	8.3
Potassium	174		554		SD-CB-02-01	10 / 10	N/A	289
Selenium	1.1	J	3.1	J	SD-CB-02-01	5 / 10	0.97 - 2.8	1.4
Sodium	500		1400	J	SD-CB-02-10	10 / 10	N/A	845
Thallium						0 / 10	0.54 - 1.7	0.43
Vanadium	18.5		45.6		SD-CB-02-04	10 / 10	N/A	27
Zinc	132	J	450	J	SD-CB-02-09	10 / 10	N/A	250
Wet Parameters - mg/Kg								
pH	5.67		5.95		SD-CB-02-03	2 / 2	N/A	6
Redox Potential	246		374		SD-CB-02-09	2 / 2	N/A	310
Sulfide	112	J	231	J	SD-CB-02-03	2 / 2	N/A	172

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-86
SEDIMENT DATA SUMMARY - STATION CB-03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4050	J	16100	J	SD-CB-03-01	12 / 12	N/A	9264
Antimony	4.2	J	4.8	J	SD-CB-03-08	3 / 12	0.43 - 3.5	1.5
Arsenic	9.1	J	1410		SD-CB-03-11	12 / 12	N/A	272
Barium	20.7		95.5		SD-CB-03-08	12 / 12	N/A	52
Beryllium	0.2		0.91		SD-CB-03-06	12 / 12	N/A	0.54
Cadmium	0.77	J	23.1	J	SD-CB-03-06	12 / 12	N/A	7.4
Calcium	1505		11100		SD-CB-03-08	12 / 12	N/A	5293
Chromium	38.7	J	768		SD-CB-03-06	12 / 12	N/A	457
Cobalt	4.35		130	J	SD-CB-03-06	12 / 12	N/A	19
Copper	29.2	J	670	J	SD-CB-03-06	12 / 12	N/A	269
Iron	8230		86500		SD-CB-03-11	12 / 12	N/A	30996
Lead	24.4	J	443	J	SD-CB-03-06	12 / 12	N/A	196
Magnesium	1610		4950		SD-CB-03-08	12 / 12	N/A	2576
Manganese	43.6	J	986		SD-CB-03-12	12 / 12	N/A	283
Mercury	0.058	J	3.6		SD-CB-03-12	12 / 12	N/A	1.2
Nickel	8.7		78.3	J	SD-CB-03-06	12 / 12	N/A	26
Potassium	370	J	466		SD-CB-03-03	3 / 12	300 - 1160	321
Selenium	0.69	J	8.8		SD-CB-03-06	11 / 11	N/A	3.8
Silver	3.2	J	3.2	J	SD-CB-03-06	1 / 8	0.11 - 0.43	0.51
Sodium	326		8880	J	SD-CB-03-06	12 / 12	N/A	2269
Thallium	1.2		1.5	J	SD-CB-03-01	3 / 11	0.48 - 1.7	0.71
Vanadium	13.5		97.4	J	SD-CB-03-08	12 / 12	N/A	47
Zinc	135		5270		SD-CB-03-06	12 / 12	N/A	1148
Wet Parameters - mg/Kg								
pH	5.44		6.28		SD-CB-03-10	2 / 2	N/A	6
Redox Potential	248		367		SD-CB-03-04	2 / 2	N/A	308
Sulfide	29.6	J	163	J	SD-CB-03-10	2 / 2	N/A	96

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-87
SEDIMENT DATA SUMMARY - STATION CB-04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4670		13800		SD-CB-04-03	10 / 10	N/A	9437
Antimony	0.67	J	7.2		SD-CB-04-02	10 / 10	N/A	3.6
Arsenic	16.5		325.5		SD-CB-04-06	10 / 10	N/A	112
Barium	20.9		109		SD-CB-04-05	10 / 10	N/A	61
Beryllium	0.25	J	1		SD-CB-04-01	10 / 10	N/A	0.62
Cadmium	0.41		8.9		SD-CB-04-05	10 / 10	N/A	4.0
Calcium	2070		11200		SD-CB-04-05	10 / 10	N/A	5878
Chromium	35.2		568		SD-CB-04-03	10 / 10	N/A	167
Cobalt	5.3		18.9		SD-CB-04-05	10 / 10	N/A	8.8
Copper	47.7		358		SD-CB-04-02	10 / 10	N/A	185
Iron	7950		86200		SD-CB-04-02	10 / 10	N/A	23967
Lead	59.6		409		SD-CB-04-03	10 / 10	N/A	208
Magnesium	1240		3680		SD-CB-04-07	10 / 10	N/A	2334
Manganese	72.5		2410		SD-CB-04-05	10 / 10	N/A	404
Mercury	0.18		2.2		SD-CB-04-02	10 / 10	N/A	0.73
Nickel	10.1		177		SD-CB-04-03	10 / 10	N/A	41
Potassium	305		1160		SD-CB-04-07	10 / 10	N/A	577
Selenium	0.95	J	5.1	J	SD-CB-04-10	9 / 10	0.58	3.0
Silver	0.23	J	11.5		SD-CB-04-02	5 / 10	0.19 - 0.53	1.3
Sodium	324		1870		SD-CB-04-05	10 / 10	N/A	693
Thallium	3.1		5.3		SD-CB-04-02	2 / 10	0.58 - 1.6	1.1
Vanadium	18.5		85.4		SD-CB-04-03	10 / 10	N/A	55
Zinc	112		8750		SD-CB-04-03	10 / 10	N/A	1397
Total Organic Carbon - mg/Kg	44300		298000		SD-CB-04-01	10 / 10	8470 - 18500	174000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-88
SEDIMENT DATA SUMMARY - STATION CB-06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4130		10800		SD-CB-06-08	10 / 10	N/A	7195
Antimony	2.2	J	7.8		SD-CB-06-03	2 / 10	1.7 - 1.9	1.7
Arsenic	22.4	J	257	J	SD-CB-06-03	10 / 10	N/A	98
Barium	8.4		59.5		SD-CB-06-07	10 / 10	N/A	40
Beryllium	0.22	J	0.66		SD-CB-06-01	6 / 10	0.2 - 0.22	0.27
Cadmium	0.88		34.6		SD-CB-06-01	10 / 10	N/A	8.6
Calcium	1260		15300		SD-CB-06-03	10 / 10	N/A	6980
Chromium	31.8		969		SD-CB-06-01	10 / 10	N/A	280
Cobalt	3.2		25		SD-CB-06-07	10 / 10	N/A	9.2
Copper	39.9		386		SD-CB-06-01	10 / 10	N/A	180
Iron	5580		26800		SD-CB-06-08	10 / 10	N/A	12693
Lead	19.9		328		SD-CB-06-01	10 / 10	N/A	137
Magnesium	1470		2950		SD-CB-06-01	10 / 10	N/A	2057
Manganese	50	J	133	J	SD-CB-06-05	10 / 10	N/A	79
Mercury	0.05	J	0.56		SD-CB-06-10	9 / 10	0.04	0.23
Nickel	6.2		49.4		SD-CB-06-01	10 / 10	N/A	19
Potassium	253		648		SD-CB-06-01	10 / 10	N/A	454
Selenium	0.975	J	3	J	SD-CB-06-01	6 / 10	0.77 - 0.86	1.4
Silver	0.22	J	0.27	J	SD-CB-06-03	2 / 10	0.19 - 0.22	0.13
Sodium	225		1130		SD-CB-06-03	10 / 10	N/A	583
Thallium	1.8	J	6.1		SD-CB-06-03	9 / 10	1.5	3.2
Vanadium	10.4		103		SD-CB-06-01	10 / 10	N/A	53
Zinc	250	J	3840	J	SD-CB-06-07	10 / 10	N/A	1421
Total Organic Carbon - mg/Kg	10500		214000		SD-CB-06-03	10 / 10	8060 - 11100	132800

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-89
SEDIMENT DATA SUMMARY - STATION CB-07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4710		13500		SD-CB-07-03	6 / 6	N/A	7968
Antimony						0 / 6	1.7 - 2.4	1.0
Arsenic	13.3	J	412	J	SD-CB-07-02	6 / 6	N/A	164
Barium	13.4		98.4		SD-CB-07-02	6 / 6	N/A	52
Beryllium	0.27	J	1.1		SD-CB-07-03	4 / 6	0.19 - 0.2	0.45
Cadmium	0.25	J	8.6		SD-CB-07-01	6 / 6	N/A	4.1
Calcium	1210		7200		SD-CB-07-01	6 / 6	N/A	3920
Chromium	53.1	J	784		SD-CB-07-03	6 / 6	N/A	354
Cobalt	2.6		40.6		SD-CB-07-01	6 / 6	N/A	16
Copper	56.5	J	437		SD-CB-07-03	6 / 6	N/A	212
Iron	8280		83000		SD-CB-07-02	6 / 6	N/A	33580
Lead	26.2	J	389		SD-CB-07-01	6 / 6	N/A	219
Magnesium	1870		2470		SD-CB-07-05	6 / 6	N/A	2157
Manganese	84.3		990	J	SD-CB-07-02	6 / 6	N/A	475
Mercury	0.09	J	1.4		SD-CB-07-03	6 / 6	N/A	0.58
Nickel	7.8		38.9		SD-CB-07-01	6 / 6	N/A	21
Potassium	306		573		SD-CB-07-01	6 / 6	N/A	385
Selenium	2.2	J	6.5	J	SD-CB-07-02	4 / 6	0.78 - 0.79	2.8
Silver	0.33	J	0.51		SD-CB-07-02	2 / 6	0.19 - 0.23	0.21
Sodium	318		1340		SD-CB-07-01	6 / 6	N/A	627
Thallium						0 / 3	1.4 - 1.6	0.73
Vanadium	15.8		102		SD-CB-07-03	6 / 6	N/A	52
Zinc	74.6		1810	J	SD-CB-07-01	6 / 6	N/A	703
Total Organic Carbon (mg/Kg)	14800		275000		SD-CB-07-02	6 / 6	5590 - 17500	135383

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-90
SEDIMENT DATA SUMMARY - STATION JY
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
Aroclor 1016						0 / 10	190 - 440	122
Aroclor 1221						0 / 10	190 - 440	122
Aroclor 1232						0 / 10	190 - 440	122
Aroclor 1242						0 / 10	190 - 440	122
Aroclor 1248						0 / 10	190 - 440	122
Aroclor 1254	230	J	2600		SD-JY-07	9 / 10	190 - 440	906
Aroclor 1260	260		2400		SD-JY-07	9 / 10	190 - 440	990
Aroclor 1262						0 / 10	190 - 440	122
Aroclor 1268						0 / 10	190 - 440	122
Metals - mg/Kg								
Aluminum	3950		17300		SD-JY-12	10 / 10	N/A	9592
Antimony	3.1		19.5		SD-JY-08	5 / 10	1.8 - 2.1	5.4
Arsenic	13.7	J	482		SD-JY-13	10 / 10	N/A	145
Barium	20		353	J	SD-JY-07	10 / 10	N/A	127
Beryllium	0.245	J	0.98	J	SD-JY-12	7 / 10	0.19 - 0.23	0.46
Cadmium	1.4		21		SD-JY-07	10 / 10	N/A	11
Calcium	1450		11900		SD-JY-13	10 / 10	N/A	7003
Chromium	69.6		1710	J	SD-JY-08	10 / 10	N/A	839
Cobalt	5.9		24.5		SD-JY-10	10 / 10	N/A	13
Copper	122	J	741	J	SD-JY-08	10 / 10	N/A	378
Iron	8240	J	58700		SD-JY-07	10 / 10	N/A	28394
Lead	47.6		1210		SD-JY-08	10 / 10	N/A	523
Magnesium	1310		3520		SD-JY-13	10 / 10	N/A	2431
Manganese	103		555		SD-JY-13	10 / 10	N/A	293
Mercury	0.1	J	2.3		SD-JY-12	7 / 10	0.05 - 0.39	0.77
Nickel	8.7		150		SD-JY-07	10 / 10	N/A	52
Potassium	426		1090		SD-JY-13	10 / 10	N/A	622
Selenium	1.3	J	5.1	J	SD-JY-07	7 / 10	0.8 - 1.9	3.0
Silver	0.385	J	1.8		SD-JY-12	7 / 10	0.19 - 0.21	0.70
Sodium	360	J	1650	J	SD-JY-13	10 / 10	N/A	821
Thallium	1.7	J	6.9	J	SD-JY-07	7 / 9	1.5 - 1.6	2.5
Vanadium	10.2		90.6		SD-JY-07	10 / 10	N/A	49
Zinc	308		2850		SD-JY-08	10 / 10	N/A	1820
Total Organic Carbon - mg/Kg	15400		218500		SD-JY-06	10 / 10	6800 - 9430	146670

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-91
SEDIMENT DATA SUMMARY - STATION KFSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	2550		9080		SD-KF-03	10 / 10	N/A	4890
Antimony						0 / 10	1.7 - 1.8	0.87
Arsenic	11.7		90.4		SD-KF-03	10 / 10	N/A	38
Barium	15.9		54.7		SD-KF-03	10 / 10	N/A	33
Beryllium	0.24		0.6		SD-KF-03	7 / 10	0.11 - 0.18	0.29
Cadmium	0.81		1.1		SD-KF-03	5 / 10	0.12 - 0.48	0.55
Calcium	1200		3550		SD-KF-03	10 / 10	N/A	2253
Chromium	20.8		113		SD-KF-03	10 / 10	N/A	68
Cobalt	3.1		10		SD-KF-03	10 / 10	N/A	6.5
Copper	21.9		185		SD-KF-03	10 / 10	N/A	79
Iron	6580		18700		SD-KF-03	10 / 10	N/A	11959
Lead	31.6		188		SD-KF-05	10 / 10	N/A	98
Magnesium	1230		2520		SD-KF-03	10 / 10	N/A	1845
Manganese	83.5		503		SD-KF-03	10 / 10	N/A	291
Mercury	0.1	J	1.6	J	SD-KF-03	10 / 10	N/A	0.51
Nickel	5.8		12.6		SD-KF-10	7 / 10	2.5 - 5.3	6.7
Potassium	246		510	J	SD-KF-03	10 / 10	N/A	340
Selenium	0.61	J	0.61	J	SD-KF-09	1 / 10	0.58 - 0.61	0.33
Silver	0.44	J	0.69	J	SD-KF-05	5 / 10	0.39 - 0.4	0.37
Sodium	161	J	286	J	SD-KF-03	7 / 10	147 - 154	186
Thallium						0 / 10	1.7 - 1.8	0.88
Vanadium	9.1		29.6		SD-KF-03	10 / 10	N/A	19
Zinc	115	J	461		SD-KF-03	10 / 10	N/A	284
Total Organic Carbon - mg/Kg	2600	J	46650		SD-KF-05	10 / 10	6410 - 9260	21195

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-92
SEDIMENT DATA SUMMARY - STATION LF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	18700		19100		SD-LF-01	2 / 2	3.9613 - 19.35	18900
Arsenic	81.9		100		SD-LF-01	2 / 2	0.3961 - 1.9351	91
Barium	141		149		SD-LF-02	2 / 2	0.3961 - 1.9351	145
Beryllium	0.95		1.1	J	SD-LF-01	2 / 2	0.1585 - 0.774	1.0
Cadmium	7.6		10.5		SD-LF-01	2 / 2	0.1585 - 0.774	9.1
Calcium	6210		6400		SD-LF-01	2 / 2	7.9225 - 38.701	6305
Chromium	258		424		SD-LF-01	2 / 2	0.3961 - 1.9351	341
Cobalt	19.5		24.8		SD-LF-01	2 / 2	0.3961 - 1.9351	22
Copper	381		471		SD-LF-01	2 / 2	0.3961 - 1.9351	426
Cyanide	2.6	J	2.6	J	SD-LF-01	2 / 2	0.2562 - 0.3018	2.6
Iron	37800		37900		SD-LF-01	2 / 2	1.5845 - 7.7402	37850
Lead	594		861		SD-LF-01	2 / 2	0.2377 - 1.161	728
Magnesium	5840		5910		SD-LF-02	2 / 2	7.9225 - 38.701	5875
Manganese	445		539		SD-LF-02	2 / 2	0.3961 - 1.9351	492
Mercury	1.1	J	1.3	J	SD-LF-01	2 / 2	0.2253 - 0.2499	1.2
Nickel	36.8		43.4		SD-LF-01	2 / 2	0.3961 - 1.9351	40
Potassium	1590		1610	J	SD-LF-01	2 / 2	15.845 - 77.402	1600
Selenium	2.8	J	4.5	J	SD-LF-01	2 / 2	0.7892 - 3.0982	3.7
Silver	0.5	J	0.5	J	SD-LF-02	1 / 2	0.3961 - 1.9351	0.73
Thallium	0.64	J	0.98	J	SD-LF-01	2 / 2	0.2368 - 0.9295	0.81
Vanadium	69.6		81.2		SD-LF-01	2 / 2	0.3961 - 1.9351	75
Zinc	1650		2280		SD-LF-01	2 / 2	0.3961 - 1.9351	1965

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-93
SEDIMENT DATA SUMMARY - STATION LM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	14600		25000		SD-LM-02	3 / 3	3.8363 - 4.5515	18833
Arsenic	60.1		144		SD-LM-02	3 / 3	0.3836 - 0.4551	95
Barium	173		368		SD-LM-02	3 / 3	0.3836 - 0.4551	249
Beryllium	0.71		1.4		SD-LM-02	3 / 3	0.1535 - 0.1821	1.0
Cadmium	5.7		12.6		SD-LM-02	3 / 3	0.1535 - 0.1821	9.8
Calcium	6030		9180		SD-LM-02	3 / 3	7.6727 - 9.103	7360
Chromium	170		428		SD-LM-02	3 / 3	0.3836 - 0.4551	307
Cobalt	19.6		37.5		SD-LM-02	3 / 3	0.3836 - 0.4551	29
Copper	249		578		SD-LM-02	3 / 3	0.3836 - 0.4551	441
Cyanide	1.6	J	1.6	J	SD-LM-01	1 / 3	0.29 - 0.4892	0.63
Iron	61800		75300		SD-LM-02	3 / 3	3.5195 - 6.1381	67333
Lead	478		929		SD-LM-03	3 / 3	0.2302 - 0.2731	752
Magnesium	9220		12900		SD-LM-01	3 / 3	7.6727 - 9.103	10677
Manganese	534		1550		SD-LM-02	3 / 3	0.3836 - 0.4551	969
Nickel	31.2		58.3		SD-LM-02	3 / 3	0.3836 - 0.4551	42
Potassium	2580		4390		SD-LM-01	3 / 3	15.345 - 18.206	3337
Selenium	1.8	J	2.7	J	SD-LM-03	3 / 3	0.1821 - 0.8722	2.3
Silver	0.5	J	0.81	J	SD-LM-03	2 / 3	0.3836 - 0.46	0.51
Thallium	0.31	J	0.7	J	SD-LM-03	3 / 3	0.228 - 0.2732	0.56
Vanadium	60.1		124		SD-LM-02	3 / 3	0.3836 - 0.4551	89
Zinc	1320		3230		SD-LM-02	3 / 3	0.3836 - 0.4551	2453

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-94
SEDIMENT DATA SUMMARY - STATION LP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	2270		20400		SD-LP-04	15 / 15	N/A	6889
Antimony	5.1	J	5.1	J	SD-LP-04	1 / 15	1.7 - 2.6	1.2
Arsenic	5.4		485	J	SD-LP-04	15 / 15	N/A	69
Barium	11.2		68.9		SD-LP-11	15 / 15	N/A	30
Beryllium	0.14		0.92		SD-LP-04	13 / 15	0.2 - 0.29	0.36
Cadmium	0.14	J	5.6	J	SD-LP-04	13 / 15	0.12	1.9
Calcium	704		4220		SD-LP-03	15 / 15	N/A	2173
Chromium	8.2		134		SD-LP-11	15 / 15	N/A	52
Cobalt	2.4		15.4		SD-LP-03	15 / 15	N/A	6.7
Copper	6.6		1560	J	SD-LP-04	15 / 15	N/A	187
Iron	4420		23800		SD-LP-11	15 / 15	N/A	10464
Lead	6.4		400	J	SD-LP-04	15 / 15	N/A	83
Magnesium	1160		3520		SD-LP-11	15 / 15	N/A	1910
Manganese	47.5		333		SD-LP-03	15 / 15	N/A	172
Mercury	0.16	J	1.4		SD-LP-04	13 / 15	0.09 - 0.1	0.46
Nickel	0.59	J	30.6		SD-LP-04	15 / 15	N/A	10
Potassium	199		868	J	SD-LP-11	15 / 15	N/A	414
Selenium	0.92	J	3.1		SD-LP-04	4 / 15	0.59 - 2.9	0.80
Silver	0.76	J	0.76	J	SD-LP-11	1 / 15	0.19 - 0.42	0.18
Sodium	285		688.5		SD-LP-06	15 / 15	N/A	430
Thallium	1.325	J	2.9	J	SD-LP-04	9 / 15	1.7 - 2.2	1.6
Vanadium	6.5		39.8		SD-LP-11	15 / 15	N/A	16
Zinc	15.2		2800		SD-LP-03	15 / 15	N/A	699
Total Organic Carbon (mg/Kg)	4800	J	68200		SD-LP-03	10 / 10	6020 - 8130	33930

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-95
SEDIMENT DATA SUMMARY - STATION MP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	9140		10600		SD-MP-02	2 / 2	3.8652 - 4.0093	9870
Antimony	1.1	J	1.5	J	SD-MP-02	2 / 2	0.3865 - 0.4009	1.3
Arsenic	53.4		54.8		SD-MP-01	2 / 2	0.3865 - 0.4009	54
Barium	67.8		76.2		SD-MP-02	2 / 2	0.3865 - 0.4009	72.0
Beryllium	0.47		0.54		SD-MP-02	2 / 2	0.1546 - 0.1604	0.51
Cadmium	4.4		5.1		SD-MP-02	2 / 2	0.1546 - 0.1604	4.8
Calcium	3720	J	4480	J	SD-MP-02	2 / 2	7.7304 - 8.0187	4100
Chromium	142		156		SD-MP-01	2 / 2	0.3865 - 0.4009	149
Cobalt	12.4		12.8		SD-MP-02	2 / 2	0.3865 - 0.4009	13
Copper	178		186		SD-MP-02	2 / 2	0.3865 - 0.4009	182
Cyanide	0.46	J	3.3	J	SD-MP-02	2 / 2	0.2841 - 0.3754	1.9
Iron	20100	J	20200	J	SD-MP-02	2 / 2	1.5461 - 1.6037	20150
Lead	249		318		SD-MP-02	2 / 2	0.2319 - 0.2406	284
Magnesium	3310		3890		SD-MP-02	2 / 2	7.7304 - 8.0187	3600
Manganese	290	J	308	J	SD-MP-01	2 / 2	0.3865 - 0.4009	299
Mercury	0.83		0.89		SD-MP-01	2 / 2	0.0947 - 0.1155	0.86
Nickel	21.6	J	24.2	J	SD-MP-02	2 / 2	0.3865 - 0.4009	23
Potassium	808		1170		SD-MP-02	2 / 2	15.46 - 16.037	989
Selenium	1	J	1	J	SD-MP-02	1 / 2	0.8365 - 0.8449	0.71
Silver						0 / 2	0.3865 - 0.4009	0.20
Sodium	279	J	369	J	SD-MP-02	2 / 2	38.651 - 40.093	324
Thallium	0.4	J	0.54	J	SD-MP-01	2 / 2	0.2509 - 0.2535	0.47
Vanadium	32.2		38.6		SD-MP-02	2 / 2	0.3865 - 0.4009	35
Zinc	930		945		SD-MP-02	2 / 2	0.3865 - 0.4009	938

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-96
SEDIMENT DATA SUMMARY - STATION NRSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4880		9220		SD-NR-02	5 / 5	N/A	6652
Antimony						0 / 5	1.7 - 2.2	0.92
Arsenic	106		221		SD-NR-02	5 / 5	N/A	166
Barium	25.4		65.5		SD-NR-01	5 / 5	N/A	41
Beryllium	0.3		0.94		SD-NR-02	5 / 5	N/A	0.50
Cadmium	0.95		2.7		SD-NR-01	4 / 5	0.49	1.3
Calcium	1610		4060		SD-NR-02	5 / 5	N/A	2774
Chromium	104		258		SD-NR-02	5 / 5	N/A	186
Cobalt	5.2		9.3		SD-NR-01	5 / 5	N/A	6.4
Copper	99.3		365		SD-NR-02	5 / 5	N/A	202
Iron	11500		25600		SD-NR-01	5 / 5	N/A	19420
Lead	80.8		249		SD-NR-02	5 / 5	N/A	161
Magnesium	1500		2630		SD-NR-02	5 / 5	N/A	2094
Manganese	95.4		317		SD-NR-01	5 / 5	N/A	164
Mercury	0.77		5.9		SD-NR-03	5 / 5	N/A	2.6
Nickel	7.8		16.1		SD-NR-01	5 / 5	N/A	11
Potassium	297		452		SD-NR-05	5 / 5	N/A	394
Selenium	0.86	J	2.4	J	SD-NR-01	5 / 5	N/A	1.8
Silver	0.93		2.4		SD-NR-02	5 / 5	N/A	1.5
Sodium	182	J	342		SD-NR-04	4 / 5	190	242
Thallium						0 / 5	1.7 - 2.2	0.93
Vanadium	16.4		32.6		SD-NR-02	5 / 5	N/A	24
Zinc	226	J	595	J	SD-NR-01	5 / 5	N/A	343
Total Organic Carbon (mg/Kg)	15900		59400		SD-NR-02	5 / 5	7250 - 8470	33460

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-97
SEDIMENT DATA SUMMARY - STATION TT-27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	7080		15800		SD-TT-27-01	4 / 4	N/A	9599
Antimony	0.87	J	0.87	J	SD-TT-27-04	1 / 4	0.42 - 0.77	0.44
Arsenic	12.3	J	142		SD-TT-27-03	4 / 4	N/A	79
Barium	46.9		387.5		SD-TT-27-02	4 / 4	N/A	207
Beryllium	0.4		0.97		SD-TT-27-01	4 / 4	N/A	0.59
Cadmium	2		6.8	J	SD-TT-27-01	4 / 4	N/A	3.7
Calcium	1920		5230		SD-TT-27-01	4 / 4	N/A	3335
Chromium	30.9	J	300		SD-TT-27-01	4 / 4	N/A	146
Cobalt	4.8		13.7	J	SD-TT-27-01	4 / 4	N/A	7.8
Copper	54.3	J	365	J	SD-TT-27-01	4 / 4	N/A	157
Iron	13900		31600		SD-TT-27-01	4 / 4	N/A	19625
Lead	122	J	734	J	SD-TT-27-01	4 / 4	N/A	298
Magnesium	2170		4640		SD-TT-27-01	4 / 4	N/A	2991
Manganese	110.9	J	493	J	SD-TT-27-01	4 / 4	N/A	223
Mercury	0.14	J	1.3		SD-TT-27-01	4 / 4	N/A	0.43
Nickel	12.5		27.5	J	SD-TT-27-01	4 / 4	N/A	17
Potassium	379		898		SD-TT-27-01	4 / 4	N/A	615
Selenium	1.9	J	3.4	J	SD-TT-27-01	4 / 4	N/A	2.3
Silver						0 / 2	0.15 - 0.16	0.078
Sodium	629.5	J	1830	J	SD-TT-27-01	4 / 4	N/A	1128
Thallium						0 / 4	0.57 - 0.7	0.31
Vanadium	36		70.9	J	SD-TT-27-01	4 / 4	N/A	50
Zinc	411.5	J	850		SD-TT-27-01	4 / 4	N/A	565
Wet Parameters - mg/Kg								
Chromium VI						0 / 1	1.29	0.65
pH	6.15		6.15		SD-TT-27-02	1 / 1	N/A	6.2
Redox Potential	231		231		SD-TT-27-02	1 / 1	N/A	231
Sulfide	50.4	J	50.4	J	SD-TT-27-02	1 / 1	N/A	50

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-98
SEDIMENT DATA SUMMARY - STATION TT-28
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	11400		21600		SD-TT-28-03	3 / 3	N/A	16567
Antimony	11.9	J	26.3	J	SD-TT-28-03	3 / 3	N/A	19
Arsenic	459	J	987	J	SD-TT-28-03	3 / 3	N/A	752
Barium	81.8		104		SD-TT-28-03	3 / 3	N/A	95
Beryllium	0.87		1.5		SD-TT-28-03	3 / 3	N/A	1.1
Cadmium	12.7	J	17.1	J	SD-TT-28-03	3 / 3	N/A	15
Calcium	5900		7520		SD-TT-28-02	3 / 3	N/A	6777
Chromium	1390	J	4240	J	SD-TT-28-02	3 / 3	N/A	2817
Cobalt	23.8	J	32.5	J	SD-TT-28-01	3 / 3	N/A	30
Copper	592	J	1330	J	SD-TT-28-03	3 / 3	N/A	962
Iron	50600		88300		SD-TT-28-03	3 / 3	N/A	66733
Lead	269	J	657	J	SD-TT-28-03	3 / 3	N/A	421
Magnesium	1780		2100		SD-TT-28-03	3 / 3	N/A	1917
Manganese	599	J	789	J	SD-TT-28-01	3 / 3	N/A	684
Mercury	3		5		SD-TT-28-02	3 / 3	N/A	4.1
Nickel	23.4		29.7	J	SD-TT-28-03	3 / 3	N/A	27
Potassium	576		625		SD-TT-28-03	3 / 3	N/A	607
Selenium	7.5	J	10.2	J	SD-TT-28-03	3 / 3	N/A	8.6
Silver	3.1	J	5.3	J	SD-TT-28-03	3 / 3	N/A	4.1
Sodium	4950	J	5460	J	SD-TT-28-03	3 / 3	N/A	5180
Thallium						0 / 3	0.7 - 0.8	0.37
Vanadium	44		69.6	J	SD-TT-28-03	3 / 3	N/A	58
Zinc	2160	J	3160	J	SD-TT-28-03	3 / 3	N/A	2517

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-99
SEDIMENT DATA SUMMARY - STATION TT-29
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	69	34.5
Acetone	1100	J	1100	J	SD-TT-29-03-TR	1 / 1	57	1100
Methylene Chloride						0 / 1	57	28.5
Metals - mg/Kg								
Aluminum	13500	J	17900	J	SD-TT-29-03	3 / 3	N/A	16233
Antimony	1.1	J	10.1	J	SD-TT-29-03	2 / 3	1.1	3.9
Arsenic	561	J	1050	J	SD-TT-29-03	3 / 3	N/A	747
Barium	60.3	J	79.3	J	SD-TT-29-02	3 / 3	N/A	71
Beryllium	0.88		1.1		SD-TT-29-03	3 / 3	N/A	1.0
Cadmium	11.15	J	15.2	J	SD-TT-29-03	3 / 3	N/A	13
Calcium	5855		7640		SD-TT-29-03	3 / 3	N/A	7035
Chromium	1460	J	5500	J	SD-TT-29-02	3 / 3	N/A	3127
Cobalt	31.8	J	36.4	J	SD-TT-29-01	3 / 3	N/A	35
Copper	704	J	1340	J	SD-TT-29-03	3 / 3	N/A	979
Iron	45200		115000		SD-TT-29-03	3 / 3	N/A	73533
Lead	316	J	649	J	SD-TT-29-02	3 / 3	N/A	501
Magnesium	1905		3440		SD-TT-29-02	3 / 3	N/A	2438
Manganese	470	J	1190	J	SD-TT-29-03	3 / 3	N/A	787
Mercury	5.6	J	13.3	J	SD-TT-29-03	3 / 3	N/A	8.6
Nickel	26.3		34.8		SD-TT-29-02	3 / 3	N/A	30
Potassium	434.5	J	804	J	SD-TT-29-02	3 / 3	N/A	571
Selenium	6.3	J	8.6	J	SD-TT-29-03	3 / 3	N/A	7.7
Silver	1.15		1.6		SD-TT-29-02	3 / 3	N/A	1.4
Sodium	3210		4530		SD-TT-29-03	3 / 3	N/A	3703
Thallium	5	J	14.3	J	SD-TT-29-03	3 / 3	N/A	9.0
Vanadium	45.9	J	96.9	J	SD-TT-29-02	3 / 3	N/A	67
Zinc	2250		3770		SD-TT-29-03	3 / 3	N/A	2848
Wet Parameters - mg/Kg								
pH	6.92		6.92		SD-TT-29-01	1 / 1	N/A	6.9
Redox Potential	78.7		78.7		SD-TT-29-01	1 / 1	N/A	79
Sulfide	1100		1100		SD-TT-29-01	1 / 1	N/A	1100

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-100
SEDIMENT DATA SUMMARY - STATION TT-30
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane	110	J	110	J	SD-TT-30-01-TR	1 / 1	47	110
Acetone	7300	J	7300	J	SD-TT-30-01-TR	1 / 1	47	7300
Methyl Acetate	530	J	530	J	SD-TT-30-01-TR	1 / 1	47	530
Methylene Chloride						0 / 1	47	24
Toluene	22	J	22	J	SD-TT-30-01-TR	1 / 1	47	22
SVOCs - ug/Kg								
Benzo(a)pyrene	33	J	33	J	SD-TT-30-01-TR	1 / 1	310	33
Benzo(b)fluoranthene	47	J	47	J	SD-TT-30-01-TR	1 / 1	310	47
Chrysene	40	J	40	J	SD-TT-30-01-TR	1 / 1	310	40
Fluoranthene	71	J	71	J	SD-TT-30-01-TR	1 / 1	310	71
Pyrene	55	J	55	J	SD-TT-30-01-TR	1 / 1	310	55
Metals - mg/Kg								
Aluminum	5780	J	17900		SD-TT-30-01-TR	4 / 4	9.14	14295
Antimony	0.9	J	23.6	J	SD-TT-30-01-TR	3 / 4	0.53 - 0.74	6.5
Arsenic	113	J	1080	J	SD-TT-30-03	4 / 4	1	587
Barium	32.7	J	124	J	SD-TT-30-01	4 / 4	0.4	70
Beryllium	0.4		1.3	J	SD-TT-30-01-TR	4 / 4	0.2	0.93
Cadmium	4	J	9.8	J	SD-TT-30-01	4 / 4	0.6	6.5
Calcium	1650		8710		SD-TT-30-01	4 / 4	2.14	5033
Chromium	623	J	5310	J	SD-TT-30-03	4 / 4	1	2368
Cobalt	9.8		30.4	J	SD-TT-30-01	4 / 4	0.36	19
Copper	253	J	3760	J	SD-TT-30-03	4 / 4	0.44	1381
Iron	12300		71600		SD-TT-30-01	4 / 4	1.4	38325
Lead	248	J	664		SD-TT-30-01-TR	4 / 4	0.6	439
Magnesium	1310		3900		SD-TT-30-01	4 / 4	15.18	2465
Manganese	205	J	1910	J	SD-TT-30-01	4 / 4	0.24	825
Mercury	1.7	J	89.2	J	SD-TT-30-03	4 / 4	0.02	25
Nickel	8		35.1		SD-TT-30-01	4 / 4	0.8	21
Potassium	171		784	J	SD-TT-30-01-TR	4 / 4	4.38	448
Selenium	2.7	J	9.3	J	SD-TT-30-01	3 / 4	1	4.1
Silver	2.2		2.2		SD-TT-30-01	1 / 4	0.36 - 1	0.77
Sodium	468		2820		SD-TT-30-01	4 / 4	98.04	1469
Thallium	1.5		9.7	J	SD-TT-30-01	3 / 4	1.1 - 1.14	3.6
Vanadium	21		66.2		SD-TT-30-01-TR	4 / 4	0.64	43
Zinc	644		1560		SD-TT-30-01	4 / 4	1.7	1186
AVS-SEM - mg/Kg								
Cadmium	3.4		3.4		SD-TT-30-01-TR	1 / 1	N/A	3.4
Copper	434		434		SD-TT-30-01-TR	1 / 1	N/A	434
Lead	365		365		SD-TT-30-01-TR	1 / 1	N/A	365
Mercury	1.2	J	1.2	J	SD-TT-30-01-TR	1 / 1	N/A	1.2
Nickel	13		13		SD-TT-30-01-TR	1 / 1	N/A	13
SEM/AVS Ratio	261		261		SD-TT-30-01-TR	1 / 1	N/A	261
Sulfide						0 / 1	2.5359	1.3
Zinc	767	J	767	J	SD-TT-30-01-TR	1 / 1	N/A	767
Total Organic Carbon (mg/Kg)	240000		240000		SD-TT-30-01-TR	1 / 1	250	240000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-101
SEDIMENT DATA SUMMARY - STATION TT-31
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	9130	J	14100	J	SD-TT-31-03	3 / 3	N/A	10927
Antimony						0 / 3	0.44 - 0.61	0.27
Arsenic	8.5	J	30.3	J	SD-TT-31-03	3 / 3	N/A	17
Barium	51.6	J	159	J	SD-TT-31-03	3 / 3	N/A	91
Beryllium	0.46		0.7		SD-TT-31-03	3 / 3	N/A	0.54
Cadmium	2.3	J	5.5	J	SD-TT-31-03	3 / 3	N/A	4.2
Calcium	4040		7730		SD-TT-31-03	3 / 3	N/A	6103
Chromium	123	J	295	J	SD-TT-31-03	3 / 3	N/A	185
Cobalt	8.7	J	19.2	J	SD-TT-31-03	3 / 3	N/A	12
Copper	56.7	J	181	J	SD-TT-31-03	3 / 3	N/A	113
Iron	15600		40700		SD-TT-31-03	3 / 3	N/A	24000
Lead	190	J	332	J	SD-TT-31-01	3 / 3	N/A	277
Magnesium	3300		5280		SD-TT-31-03	3 / 3	N/A	4070
Manganese	213	J	1210	J	SD-TT-31-03	3 / 3	N/A	595
Mercury	0.94	J	1.8	J	SD-TT-31-01	3 / 3	N/A	1.4
Nickel	19.7		35.6		SD-TT-31-03	3 / 3	N/A	26
Potassium	577	J	1020	J	SD-TT-31-03	3 / 3	N/A	726
Selenium	1.8	J	4.1	J	SD-TT-31-03	3 / 3	N/A	2.7
Silver	0.6	J	0.6	J	SD-TT-31-03	1 / 3	0.3 - 0.38	0.31
Sodium	912		2020		SD-TT-31-03	3 / 3	N/A	1554
Vanadium	38.1	J	56.5	J	SD-TT-31-03	3 / 3	N/A	46
Zinc	280		678		SD-TT-31-03	3 / 3	N/A	464
Wet Parameters - mg/Kg								
pH	6.32		6.32		SD-TT-31-03	1 / 1	N/A	6
Redox Potential	195		195		SD-TT-31-03	1 / 1	N/A	195
Sulfide	84.9		84.9		SD-TT-31-03	1 / 1	N/A	85

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-102
SEDIMENT DATA SUMMARY - STATION TT-32
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	69	35
Acetone	260	J	260	J	SD-TT-32-02-TR	1 / 1	47	260
Methylene Chloride						0 / 1	47	24
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	240	120
2,2'-oxybis(1-Chloropropane)						0 / 1	240	120
2,4,5-Trichlorophenol						0 / 1	590	295
2,4,6-Trichlorophenol						0 / 1	240	120
2,4-Dichlorophenol						0 / 1	240	120
2,4-Dimethylphenol						0 / 1	240	120
2,4-Dinitrophenol						0 / 1	590	295
2,4-Dinitrotoluene						0 / 1	240	120
2,6-Dinitrotoluene						0 / 1	240	120
2-Chloronaphthalene						0 / 1	240	120
2-Chlorophenol						0 / 1	240	120
2-Methylnaphthalene						0 / 1	240	120
2-Methylphenol						0 / 1	240	120
2-Nitroaniline						0 / 1	590	295
2-Nitrophenol						0 / 1	240	120
3,3'-Dichlorobenzidine						0 / 1	240	120
3-Nitroaniline						0 / 1	240	120
4,6-Dinitro-2-methylphenol						0 / 1	590	295
4-Bromophenyl-phenylether						0 / 1	240	120
4-Chloro-3-methylphenol						0 / 1	240	120
4-Chloroaniline						0 / 1	240	120
4-Chlorophenyl-phenyl ether						0 / 1	240	120
4-Nitroaniline						0 / 1	590	295
4-Nitrophenol						0 / 1	590	295
Acenaphthene						0 / 1	240	120
Acenaphthylene						0 / 1	240	120
Acetophenone						0 / 1	240	120
Anthracene						0 / 1	240	120
Atrazine						0 / 1	240	120
Benzaldehyde						0 / 1	240	120
Benzo(a)anthracene	400		400		SD-TT-32-02-TR	1 / 1	240	400
Benzo(a)pyrene	470	J	470	J	SD-TT-32-02-TR	1 / 1	240	470
Benzo(b)fluoranthene	810		810		SD-TT-32-02-TR	1 / 1	240	810
Benzo(g,h,i)perylene	230	J	230	J	SD-TT-32-02-TR	1 / 1	240	230
Benzo(k)fluoranthene	180	J	180	J	SD-TT-32-02-TR	1 / 1	240	180
Bis(2-Chloroethoxy)methane						0 / 1	240	120
Bis(2-Chloroethyl)ether						0 / 1	240	120
bis(2-Ethylhexyl)phthalate	370		370		SD-TT-32-02-TR	1 / 1	240	370
Butylbenzylphthalate	130	J	130	J	SD-TT-32-02-TR	1 / 1	240	130
Caprolactam						0 / 1	240	120
Carbazole						0 / 1	240	120
Chrysene	460		460		SD-TT-32-02-TR	1 / 1	240	460
Dibenz(a,h)anthracene						0 / 1	240	120
Dibenzofuran						0 / 1	240	120
Diethylphthalate						0 / 1	240	120
Dimethylphthalate						0 / 1	240	120
Di-n-Butylphthalate						0 / 1	240	120
Di-n-octylphthalate						0 / 1	240	120
Fluoranthene	1000		1000		SD-TT-32-02-TR	1 / 1	240	1000
Fluorene						0 / 1	240	120
Hexachlorobenzene						0 / 1	240	120
Hexachlorobutadiene sv						0 / 1	240	120
Hexachlorocyclopentadiene						0 / 1	240	120
Hexachloroethane						0 / 1	240	120
Indeno(1,2,3-cd)pyrene	210	J	210	J	SD-TT-32-02-TR	1 / 1	240	210
Isophorone						0 / 1	240	120
Naphthalene sv						0 / 1	240	120
Nitrobenzene						0 / 1	240	120
N-Nitroso-di-n-propylamine						0 / 1	240	120
N-Nitrosodiphenylamine						0 / 1	240	120

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TABLE 2-102
SEDIMENT DATA SUMMARY - STATION TT-32
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Pentachlorophenol						0 / 1	590	295
Phenanthrene	450		450		SD-TT-32-02-TR	1 / 1	240	450
Phenol						0 / 1	240	120
Pyrene	860		860		SD-TT-32-02-TR	1 / 1	240	860
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	0.94	0.47
4,4'-DDE	0.78	J	0.78	J	SD-TT-32-02-TR	1 / 1	0.94	0.78
4,4'-DDT						0 / 1	0.94	0.47
Aldrin						0 / 1	0.47	0.24
alpha-BHC						0 / 1	0.47	0.24
alpha-Chlordane						0 / 1	0.47	0.24
Aroclor 1016						0 / 1	9.4	4.7
Aroclor 1221						0 / 1	19	9.5
Aroclor 1232						0 / 1	9.4	4.7
Aroclor 1242						0 / 1	9.4	4.7
Aroclor 1248						0 / 1	9.4	4.7
Aroclor 1254						0 / 1	9.4	4.7
Aroclor 1260						0 / 1	9.4	4.7
beta-BHC						0 / 1	0.47	0.24
delta-BHC						0 / 1	0.47	0.24
Dieldrin						0 / 1	0.94	0.47
Endosulfan I						0 / 1	0.47	0.24
Endosulfan II						0 / 1	0.94	0.47
Endosulfan Sulfate						0 / 1	0.94	0.47
Endrin						0 / 1	0.94	0.47
Endrin Aldehyde						0 / 1	0.94	0.47
Endrin Ketone						0 / 1	0.94	0.47
gamma-BHC (Lindane)						0 / 1	0.47	0.24
gamma-Chlordane						0 / 1	0.47	0.24
Heptachlor						0 / 1	0.47	0.24
Heptachlor Epoxide						0 / 1	0.47	0.24
Methoxychlor						0 / 1	4.7	2.4
Toxaphene						0 / 1	47	24
Metals - mg/Kg								
Aluminum	5080		11500		SD-TT-32-02-TR	4 / 4	9.14	7975
Antimony	9.1	J	9.1	J	SD-TT-32-02-TR	1 / 4	0.71 - 2.3	2.8
Arsenic	94.2		403		SD-TT-32-03	4 / 4	1	252
Barium	35.1		112		SD-TT-32-03	4 / 4	0.4	70
Beryllium	0.29		0.82	J	SD-TT-32-02-TR	4 / 4	0.2	0.54
Cadmium	3.2	J	6.5	J	SD-TT-32-02	4 / 4	0.6	5.0
Calcium	2090		4960		SD-TT-32-03	4 / 4	2.14	3948
Chromium	368		699		SD-TT-32-02-TR	4 / 4	1	530
Cobalt	8.9	J	27	J	SD-TT-32-03	4 / 4	0.36	22
Copper	183	J	403		SD-TT-32-02-TR	4 / 4	0.44	304
Iron	14800		57200		SD-TT-32-03	4 / 4	1.4	31425
Lead	152	J	288		SD-TT-32-02-TR	4 / 4	0.6	216
Magnesium	1490		2890		SD-TT-32-02-TR	4 / 4	15.18	2100
Manganese	133		2040		SD-TT-32-03	4 / 4	0.24	767
Mercury	0.44		4.3		SD-TT-32-03	4 / 4	0.2	2.7
Nickel	10.1	J	21.6	J	SD-TT-32-02	4 / 4	0.8	18
Potassium	646	J	646	J	SD-TT-32-02-TR	1 / 4	4.38 - 498	296
Selenium	2.2	J	5.4		SD-TT-32-03	3 / 4	1	2.7
Silver						0 / 3	0.12 - 1	0.22
Sodium	981	J	2450	J	SD-TT-32-02	3 / 4	97.3 - 400	1380
Thallium						0 / 4	0.5 - 1.1	0.36
Vanadium	21.7	J	38.1	J	SD-TT-32-02-TR	4 / 4	0.64	31
Zinc	518		1960		SD-TT-32-02	4 / 4	1.7	1195
AVS-SEM - mg/Kg								
Cadmium	3.6		3.6		SD-TT-32-02-TR	1 / 1	N/A	3.6
Copper	202		202		SD-TT-32-02-TR	1 / 1	N/A	202
Lead	161		161		SD-TT-32-02-TR	1 / 1	N/A	161
Mercury	0.82	J	0.82	J	SD-TT-32-02-TR	1 / 1	N/A	0.82
Nickel	12		12		SD-TT-32-02-TR	1 / 1	N/A	12
SEM/AVS Ratio	5.2		5.2		SD-TT-32-02-TR	1 / 1	N/A	5.2

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TABLE 2-102
SEDIMENT DATA SUMMARY - STATION TT-32
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Sulfide	90		90		SD-TT-32-02-TR	1 / 1	N/A	90
Zinc	726		726		SD-TT-32-02-TR	1 / 1	N/A	726
Wet Parameters - mg/Kg								
pH	6.35		6.35		SD-TT-32-02	1 / 1	N/A	6.4
Redox Potential	146		146		SD-TT-32-02	1 / 1	N/A	146
Sulfide	297	J	297	J	SD-TT-32-02	1 / 1	N/A	297
Total Organic Carbon (mg/Kg)	150000	J	150000	J	SD-TT-32-02-TR	1 / 1	250	150000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-103
SEDIMENT DATA SUMMARY - STATION TT-33
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	28	14
Acetone	200	J	200	J	SD-TT-33-02-TR	1 / 1	23	200
Methylene Chloride						0 / 1	23	12
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	130	65
2,2'-oxybis(1-Chloropropane)						0 / 1	130	65
2,4,5-Trichlorophenol						0 / 1	330	165
2,4,6-Trichlorophenol						0 / 1	130	65
2,4-Dichlorophenol						0 / 1	130	65
2,4-Dimethylphenol						0 / 1	130	65
2,4-Dinitrophenol						0 / 1	330	165
2,4-Dinitrotoluene						0 / 1	130	65
2,6-Dinitrotoluene						0 / 1	130	65
2-Chloronaphthalene						0 / 1	130	65
2-Chlorophenol						0 / 1	130	65
2-Methylnaphthalene						0 / 1	130	65
2-Methylphenol						0 / 1	130	65
2-Nitroaniline						0 / 1	330	165
2-Nitrophenol						0 / 1	130	65
3,3'-Dichlorobenzidine						0 / 1	130	65
3-Nitroaniline						0 / 1	130	65
4,6-Dinitro-2-methylphenol						0 / 1	330	165
4-Bromophenyl-phenylether						0 / 1	130	65
4-Chloro-3-methylphenol						0 / 1	130	65
4-Chloroaniline						0 / 1	130	65
4-Chlorophenyl-phenyl ether						0 / 1	130	65
4-Nitroaniline						0 / 1	330	165
4-Nitrophenol						0 / 1	330	165
Acenaphthene						0 / 1	130	65
Acenaphthylene						0 / 1	130	65
Acetophenone						0 / 1	130	65
Anthracene						0 / 1	130	65
Atrazine						0 / 1	130	65
Benzaldehyde						0 / 1	130	65
Benzo(a)anthracene	110	J	110	J	SD-TT-33-02-TR	1 / 1	130	110
Benzo(a)pyrene	140	J	140	J	SD-TT-33-02-TR	1 / 1	130	140
Benzo(b)fluoranthene	260		260		SD-TT-33-02-TR	1 / 1	130	260
Benzo(g,h,i)perylene	60	J	60	J	SD-TT-33-02-TR	1 / 1	130	60
Benzo(k)fluoranthene	99	J	99	J	SD-TT-33-02-TR	1 / 1	130	99
Bis(2-Chloroethoxy)methane						0 / 1	130	65
Bis(2-Chloroethyl)ether						0 / 1	130	65
bis(2-Ethylhexyl)phthalate	81	J	81	J	SD-TT-33-02-TR	1 / 1	130	81
Butylbenzylphthalate						0 / 1	130	65
Caprolactam						0 / 1	130	65
Carbazole						0 / 1	130	65
Chrysene	160		160		SD-TT-33-02-TR	1 / 1	130	160
Dibenz(a,h)anthracene						0 / 1	130	65
Dibenzofuran						0 / 1	130	65
Diethylphthalate						0 / 1	130	65
Dimethylphthalate						0 / 1	130	65
Di-n-Butylphthalate						0 / 1	130	65
Di-n-octylphthalate						0 / 1	130	65
Fluoranthene	290		290		SD-TT-33-02-TR	1 / 1	130	290
Fluorene						0 / 1	130	65
Hexachlorobenzene						0 / 1	130	65
Hexachlorobutadiene sv						0 / 1	130	65
Hexachlorocyclopentadiene						0 / 1	130	65
Hexachloroethane						0 / 1	130	65
Indeno(1,2,3-cd)pyrene	60	J	60	J	SD-TT-33-02-TR	1 / 1	130	60
Isophorone						0 / 1	130	65
Naphthalene sv						0 / 1	130	65
Nitrobenzene						0 / 1	130	65
N-Nitroso-di-n-propylamine						0 / 1	130	65
N-Nitrosodiphenylamine						0 / 1	130	65

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TABLE 2-103
SEDIMENT DATA SUMMARY - STATION TT-33
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Pentachlorophenol						0 / 1	330	165
Phenanthrene	130	J	130	J	SD-TT-33-02-TR	1 / 1	130	130
Phenol						0 / 1	130	65
Pyrene	270		270		SD-TT-33-02-TR	1 / 1	130	270
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.2		1.2		SD-TT-33-02-TR	1 / 1	1.1	1.2
4,4'-DDE	1.7		1.7		SD-TT-33-02-TR	1 / 1	1.1	1.7
4,4'-DDT						0 / 1	1.1	0.55
Aldrin						0 / 1	0.53	0.27
alpha-BHC						0 / 1	0.53	0.27
alpha-Chlordane						0 / 1	0.53	0.27
Aroclor 1016						0 / 1	11	5.5
Aroclor 1221						0 / 1	21	11
Aroclor 1232						0 / 1	11	5.5
Aroclor 1242						0 / 1	11	5.5
Aroclor 1248						0 / 1	11	5.5
Aroclor 1254						0 / 1	11	5.5
Aroclor 1260						0 / 1	11	5.5
beta-BHC						0 / 1	0.53	0.27
delta-BHC						0 / 1	0.53	0.27
Dieldrin						0 / 1	1.1	0.55
Endosulfan I						0 / 1	0.53	0.27
Endosulfan II						0 / 1	1.1	0.55
Endosulfan Sulfate						0 / 1	1.1	0.55
Endrin						0 / 1	1.1	0.55
Endrin Aldehyde						0 / 1	1.1	0.55
Endrin Ketone						0 / 1	1.1	0.55
gamma-BHC (Lindane)						0 / 1	0.53	0.27
gamma-Chlordane						0 / 1	0.53	0.27
Heptachlor						0 / 1	0.53	0.27
Heptachlor Epoxide						0 / 1	0.53	0.27
Methoxychlor						0 / 1	5.3	2.7
Toxaphene						0 / 1	53	27
Metals - mg/Kg								
Aluminum	6640		11700		SD-TT-33-01	4 / 4	9.14	9603
Antimony	3.5	J	9.1	J	SD-TT-33-02	4 / 4	0.74	5.7
Arsenic	180	J	288	J	SD-TT-33-03	4 / 4	1	241
Barium	41.2		78.4		SD-TT-33-03	4 / 4	0.4	62
Beryllium	0.39		0.72		SD-TT-33-03	4 / 4	0.2	0.57
Cadmium	2.8		7.4	J	SD-TT-33-01	4 / 4	0.6	5.6
Calcium	2370		5130		SD-TT-33-01	4 / 4	2.14	3395
Chromium	420		2200	J	SD-TT-33-02	4 / 4	1	987
Cobalt	14.1	J	27.4		SD-TT-33-03	4 / 4	0.36	20
Copper	270		489	J	SD-TT-33-01	4 / 4	0.44	407
Iron	16800		37800		SD-TT-33-03	4 / 4	1.4	30475
Lead	141		285	J	SD-TT-33-03	4 / 4	0.6	198
Magnesium	1330		2560		SD-TT-33-03	4 / 4	15.18	1945
Manganese	154	J	776		SD-TT-33-02-TR	4 / 4	0.24	594
Mercury	1.2		5.6	J	SD-TT-33-03	4 / 4	0.2	3.2
Nickel	9.2		22		SD-TT-33-03	4 / 4	0.8	15
Potassium	243		507		SD-TT-33-01	4 / 4	4.38	380
Selenium	2.7	J	4.6	J	SD-TT-33-03	3 / 4	0.99	3.0
Silver	1.1	J	2.3	J	SD-TT-33-03	3 / 4	0.99	1.5
Sodium	2010	J	2790	J	SD-TT-33-01	3 / 4	97.3	1822
Thallium						0 / 4	0.31 - 1.1	0.39
Vanadium	19.3		42.2		SD-TT-33-03	4 / 4	0.64	30
Zinc	581	J	1090	J	SD-TT-33-02	4 / 4	1.7	940
AVS-SEM - mg/Kg								
Cadmium	2.2		2.2		SD-TT-33-02-TR	1 / 1	N/A	2.2
Copper	178		178		SD-TT-33-02-TR	1 / 1	N/A	178
Lead	104		104		SD-TT-33-02-TR	1 / 1	N/A	104
Mercury	1.1	J	1.1	J	SD-TT-33-02-TR	1 / 1	N/A	1.1
Nickel	6.1		6.1		SD-TT-33-02-TR	1 / 1	N/A	6.1
SEM/AVS Ratio	4.6		4.6		SD-TT-33-02-TR	1 / 1	N/A	4.6

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TABLE 2-103
SEDIMENT DATA SUMMARY - STATION TT-33
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Sulfide	63		63		SD-TT-33-02-TR	1 / 1	N/A	63
Zinc	401		401		SD-TT-33-02-TR	1 / 1	N/A	401
Wet Parameters - mg/Kg								
pH	6.7		6.7		SD-TT-33-02	1 / 1	N/A	6.7
Redox Potential	119		119		SD-TT-33-02	1 / 1	N/A	119
Sulfide	37.7	J	37.7	J	SD-TT-33-02	1 / 1	N/A	38
Total Organic Carbon (mg/Kg)	86000	J	86000	J	SD-TT-33-02-TR	1 / 1	250	86000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-104
SEDIMENT DATA SUMMARY - STATION UF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane	79.5	J	79.5	J	SD-UF-02-TR	1 / 1	92	80
1,1,2-Trichloro-1,2,2-trifluoroetha	37.5	J	37.5	J	SD-UF-02-TR	1 / 1	92	38
Acetone	565	J	565	J	SD-UF-02-TR	1 / 1	92	565
Methyl Acetate	150	J	150	J	SD-UF-02-TR	1 / 1	92	150
Methylene Chloride						0 / 1	73	37
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	510	255
2,2'-oxybis(1-Chloropropane)						0 / 1	510	255
2,4,5-Trichlorophenol						0 / 1	1300	650
2,4,6-Trichlorophenol						0 / 1	510	255
2,4-Dichlorophenol						0 / 1	510	255
2,4-Dimethylphenol						0 / 1	510	255
2,4-Dinitrophenol						0 / 1	1300	650
2,4-Dinitrotoluene						0 / 1	510	255
2,6-Dinitrotoluene						0 / 1	510	255
2-Chloronaphthalene						0 / 1	510	255
2-Chlorophenol						0 / 1	510	255
2-Methylnaphthalene						0 / 1	510	255
2-Methylphenol						0 / 1	510	255
2-Nitroaniline						0 / 1	1300	650
2-Nitrophenol						0 / 1	510	255
3,3'-Dichlorobenzidine						0 / 1	510	255
3+4-Methylphenols						0 / 1	510	255
3-Nitroaniline						0 / 1	510	255
4,6-Dinitro-2-methylphenol						0 / 1	1300	650
4-Bromophenyl-phenylether						0 / 1	510	255
4-Chloro-3-methylphenol						0 / 1	510	255
4-Chloroaniline						0 / 1	510	255
4-Chlorophenyl-phenyl ether						0 / 1	510	255
4-Nitroaniline						0 / 1	1300	650
4-Nitrophenol						0 / 1	1300	650
Acenaphthene						0 / 1	510	255
Acenaphthylene						0 / 1	510	255
Acetophenone						0 / 1	510	255
Anthracene						0 / 1	510	255
Atrazine						0 / 1	510	255
Benzaldehyde						0 / 1	510	255
Benzo(a)anthracene						0 / 1	510	255
Benzo(a)pyrene						0 / 1	510	255
Benzo(b)fluoranthene	290	J	290	J	SD-UF-02-TR	1 / 1	510	290
Benzo(g,h,i)perylene						0 / 1	510	255
Benzo(k)fluoranthene						0 / 1	510	255
Bis(2-Chloroethoxy)methane						0 / 1	510	255
Bis(2-Chloroethyl)ether						0 / 1	510	255
bis(2-Ethylhexyl)phthalate						0 / 1	510	255
Butylbenzylphthalate						0 / 1	510	255
Caprolactam						0 / 1	510	255
Carbazole						0 / 1	510	255
Chrysene						0 / 1	510	255
Dibenz(a,h)anthracene						0 / 1	510	255
Dibenzofuran						0 / 1	510	255
Diethylphthalate						0 / 1	510	255
Dimethylphthalate						0 / 1	510	255
Di-n-Butylphthalate						0 / 1	510	255
Di-n-octylphthalate						0 / 1	510	255
Fluoranthene	270	J	270	J	SD-UF-02-TR	1 / 1	510	270

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TABLE 2-104
SEDIMENT DATA SUMMARY - STATION UF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Fluorene						0 / 1	510	255
Hexachlorobenzene						0 / 1	510	255
Hexachlorobutadiene sv						0 / 1	510	255
Hexachlorocyclopentadiene						0 / 1	510	255
Hexachloroethane						0 / 1	510	255
Indeno(1,2,3-cd)pyrene						0 / 1	510	255
Isophorone						0 / 1	510	255
Naphthalene sv						0 / 1	510	255
Nitrobenzene						0 / 1	510	255
N-Nitroso-di-n-propylamine						0 / 1	510	255
N-Nitrosodiphenylamine						0 / 1	510	255
Pentachlorophenol						0 / 1	1300	650
Phenanthrene						0 / 1	510	255
Phenol						0 / 1	510	255
Pyrene	270	J	270	J	SD-UF-02-TR	1 / 1	510	270
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	4.2	2.1
4,4'-DDE	3.05	J	3.05	J	SD-UF-02-TR	1 / 1	4.2	3.1
4,4'-DDT						0 / 1	4.2	2.1
Aldrin						0 / 1	2.1	1.1
alpha-BHC						0 / 1	2.1	1.1
alpha-Chlordane						0 / 1	2.1	1.1
Aroclor 1016						0 / 1	42	21
Aroclor 1221						0 / 1	83	42
Aroclor 1232						0 / 1	42	21
Aroclor 1242						0 / 1	42	21
Aroclor 1248						0 / 1	42	21
Aroclor 1254						0 / 1	42	21
Aroclor 1260						0 / 1	42	21
beta-BHC						0 / 1	2.1	1.1
delta-BHC						0 / 1	2.1	1.1
Dieldrin						0 / 1	4.2	2.1
Endosulfan I						0 / 1	2.1	1.1
Endosulfan II						0 / 1	4.2	2.1
Endosulfan Sulfate						0 / 1	4.2	2.1
Endrin						0 / 1	4.2	2.1
Endrin Aldehyde						0 / 1	4.2	2.1
Endrin Ketone						0 / 1	4.2	2.1
gamma-BHC (Lindane)						0 / 1	2.1	1.1
gamma-Chlordane						0 / 1	2.1	1.1
Heptachlor						0 / 1	2.1	1.1
Heptachlor Epoxide						0 / 1	2.1	1.1
Methoxychlor						0 / 1	21	11
Toxaphene						0 / 1	210	105
Metals - mg/Kg								
Aluminum	21700		24800		SD-UF-02	4 / 4	3.1012 - 370	23138
Antimony	8.15		8.15		SD-UF-02-TR	1 / 1	103	8.2
Arsenic	121		177.5		SD-UF-02-TR	4 / 4	0.3101 - 406	149
Barium	147		198		SD-UF-03	4 / 4	0.3101 - 35.9	171
Beryllium	1.2		1.6	J	SD-UF-02-TR	4 / 4	0.124 - 4.75	1.4
Cadmium	10.6		19.15		SD-UF-02-TR	4 / 4	0.124 - 22.7	15
Calcium	7650		8600		SD-UF-01	4 / 4	6.2023 - 677	8215
Chromium	389		954		SD-UF-02	4 / 4	0.3101 - 63.7	673
Cobalt	26		32.15	J	SD-UF-02-TR	4 / 4	0.3101 - 100	30
Copper	493		699		SD-UF-02	4 / 4	0.3101 - 45	607

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TABLE 2-104
SEDIMENT DATA SUMMARY - STATION UF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Cyanide	1		4.4		SD-UF-02	3 / 3	0.2227 - 0.3368	2.4
Iron	44300	J	47100		SD-UF-02-TR	4 / 4	1.9195 - 2406	46000
Lead	607		1230		SD-UF-02	4 / 4	0.1861 - 75	942
Magnesium	6045		7350		SD-UF-03	4 / 4	6.2023 - 855	6561
Manganese	478		923		SD-UF-03	4 / 4	0.3101 - 12.7	712
Mercury	0.3	J	2	J	SD-UF-01	4 / 4	0.207 - 100	1.5
Nickel	46.4		53.8		SD-UF-02	4 / 4	0.3101 - 63	49
Potassium	1590		1975	J	SD-UF-02-TR	4 / 4	12.404 - 4930	1799
Selenium	2.2		2.7		SD-UF-02	3 / 4	0.8023 - 498	1.9
Silver	0.42	J	1.4	J	SD-UF-02	3 / 4	0.3101 - 41.7	0.88
Sodium	636	J	1165		SD-UF-02-TR	4 / 4	31.011 - 733	830
Thallium	0.68	J	1.1		SD-UF-02	3 / 4	0.2407 - 400	0.80
Vanadium	78.6	J	110	J	SD-UF-02	4 / 4	0.3101 - 87	92
Zinc	2060		3270		SD-UF-02	4 / 4	0.3101 - 75.9	2741
AVS-SEM - mg/Kg								
Cadmium	11		11		SD-UF-02-TR	1 / 1	N/A	11
Copper	316		316		SD-UF-02-TR	1 / 1	N/A	316
Lead	657		657		SD-UF-02-TR	1 / 1	N/A	657
Mercury	0.060	J	0.060	J	SD-UF-02-TR	1 / 1	N/A	0.060
Nickel	20		20		SD-UF-02-TR	1 / 1	N/A	20
SEM/AVS Ratio	2.5		2.5		SD-UF-02-TR	1 / 1	N/A	2.5
Sulfide	504	J	504	J	SD-UF-02-TR	1 / 1	N/A	504
Zinc	1780	J	1780	J	SD-UF-02-TR	1 / 1	N/A	1780
Wet Parameters - mg/Kg								
Chromium VI						0 / 1	8.297	4
pH	6		6		SD-UF-03	1 / 1	N/A	6
Redox Potential	-42		-42		SD-UF-03	1 / 1	N/A	-42
Sulfide	975	J	975	J	SD-UF-03	1 / 1	5.67	975
Total Organic Carbon (mg/Kg)	360000		360000		SD-UF-02-TR	1 / 1	250	360000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-105
SEDIMENT DATA SUMMARY - STATION UM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	14300		23000		SD-UM-02	3 / 3	4.4135 - 4.4592	18900
Arsenic	171		323		SD-UM-02	3 / 3	0.4414 - 0.4459	240
Barium	181		366		SD-UM-02	3 / 3	0.4414 - 0.4459	251
Beryllium	0.895		1.4		SD-UM-02	3 / 3	0.1765 - 0.1784	1.2
Cadmium	7.65		12		SD-UM-03	3 / 3	0.1765 - 0.1784	10
Calcium	3755		6580		SD-UM-02	3 / 3	8.8271 - 8.9184	5418
Chromium	302		356		SD-UM-02	3 / 3	0.4414 - 0.4459	322
Cobalt	30.6		72.2		SD-UM-02	3 / 3	0.4414 - 0.4459	49
Copper	362.5		565		SD-UM-02	3 / 3	0.4414 - 0.4459	476
Cyanide	0.565	J	1.6	J	SD-UM-03	3 / 3	0.241 - 0.3883	1.1
Iron	49200		106000		SD-UM-02	3 / 3	3.5308 - 7.1057	75450
Lead	802		1290		SD-UM-02	3 / 3	0.2648 - 0.2676	1022
Magnesium	3735		6040		SD-UM-02	3 / 3	8.8271 - 8.9184	5028
Manganese	1020		3060		SD-UM-02	3 / 3	0.4414 - 1.7764	1915
Mercury	0.89	J	0.89	J	SD-UM-03	1 / 1	0.372	0.89
Nickel	40.25		64.3		SD-UM-02	3 / 3	0.4414 - 0.4459	50
Potassium	1042.5		1740		SD-UM-02	3 / 3	17.654 - 17.836	1431
Selenium	2.2	J	4	J	SD-UM-03	3 / 3	0.7131 - 0.8749	3.0
Silver	1.015	J	1.3	J	SD-UM-02	3 / 3	0.4414 - 0.4459	1.1
Thallium	0.49	J	0.78	J	SD-UM-03	3 / 3	0.2139 - 0.2625	0.62
Vanadium	114		180		SD-UM-02	3 / 3	0.4414 - 0.4459	138
Zinc	1995		3090		SD-UM-02	3 / 3	0.4414 - 0.4459	2615

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-106
SEDIMENT DATA SUMMARY - STATION WG
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	3140		25700		SD-WG-13	20 / 20	3.6284 - 4.7473	13938
Antimony	0.75	J	24.5	J	SD-WG-07	10 / 18	0.3628 - 6.6	6.0
Arsenic	6.6		1450	J	SD-WG-07	20 / 20	0.3628 - 0.4747	134
Barium	14.1		177		SD-WG-01	20 / 20	0.3628 - 0.4747	79
Beryllium	0.27	J	2.6		SD-WG-13	19 / 20	0.1451 - 0.1899	1.1
Cadmium	0.46		12.3		SD-WG-10	20 / 20	0.1451 - 0.1899	5.1
Calcium	1200		17350		SD-WG-09	20 / 20	7.2569 - 9.4945	9423
Chromium	14.3		2570		SD-WG-10	20 / 20	0.3628 - 0.4747	578
Cobalt	2.7	J	44.1		SD-WG-07	20 / 20	0.3628 - 0.4747	16
Copper	18.8		1330		SD-WG-07	20 / 20	0.3628 - 0.4747	479
Cyanide	0.32	J	2.5	J	SD-WG-19	15 / 20	0.0942 - 0.4748	0.87
Iron	4920		119000		SD-WG-07	20 / 20	1.4514 - 6.9495	20514
Lead	23.9		810		SD-WG-07	20 / 20	0.2177 - 0.2848	440
Magnesium	184	J	5110		SD-WG-20	20 / 20	7.2569 - 9.4945	1916
Manganese	89.5		1910		SD-WG-01	20 / 20	0.3628 - 0.4747	704
Mercury	0.1	J	11.6	J	SD-WG-07	19 / 20	0.0616 - 0.3289	1.4
Nickel	4.8		79.2		SD-WG-20	20 / 20	0.3628 - 0.4747	29
Potassium	84	J	1035		SD-WG-20	20 / 20	14.513 - 18.989	440
Selenium	0.66	J	8.6		SD-WG-02	19 / 20	0.1522 - 1.6	3.6
Silver	0.64	J	2.95	J	SD-WG-20	3 / 20	0.36 - 0.4747	0.40
Sodium	78.9	J	652	J	SD-WG-14	16 / 16	36.284 - 47.447	464
Thallium	0.24	J	0.7	J	SD-WG-01	13 / 20	0.2218 - 0.2821	0.34
Vanadium	10.3		104.35		SD-WG-09	20 / 20	0.3628 - 0.4747	55
Zinc	80.1		2080		SD-WG-10	20 / 20	0.3628 - 0.4747	856

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-107
SEDIMENT DATA SUMMARY - STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	140	70
Acetone	2700	J	2700	J	SD-WH-07-TR	1 / 1	190	2700
Methylene Chloride						0 / 1	140	70
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	600	300
2,2'-oxybis(1-Chloropropane)						0 / 1	600	300
2,4,5-Trichlorophenol						0 / 1	1500	750
2,4,6-Trichlorophenol						0 / 1	600	300
2,4-Dichlorophenol						0 / 1	600	300
2,4-Dimethylphenol						0 / 1	600	300
2,4-Dinitrophenol						0 / 1	1500	750
2,4-Dinitrotoluene						0 / 1	600	300
2,6-Dinitrotoluene						0 / 1	600	300
2-Chloronaphthalene						0 / 1	600	300
2-Chlorophenol						0 / 1	600	300
2-Methylnaphthalene						0 / 1	600	300
2-Methylphenol						0 / 1	600	300
2-Nitroaniline						0 / 1	1500	750
2-Nitrophenol						0 / 1	600	300
3,3'-Dichlorobenzidine						0 / 1	600	300
3-Nitroaniline						0 / 1	600	300
4,6-Dinitro-2-methylphenol						0 / 1	1500	750
4-Bromophenyl-phenylether						0 / 1	600	300
4-Chloro-3-methylphenol						0 / 1	600	300
4-Chloroaniline						0 / 1	600	300
4-Chlorophenyl-phenyl ether						0 / 1	600	300
4-Nitroaniline						0 / 1	1500	750
4-Nitrophenol						0 / 1	1500	750
Acenaphthene						0 / 1	600	300
Acenaphthylene						0 / 1	600	300
Acetophenone						0 / 1	600	300
Anthracene						0 / 1	600	300
Atrazine						0 / 1	600	300
Benzaldehyde						0 / 1	600	300
Benzo(a)anthracene						0 / 1	600	300
Benzo(b)fluoranthene						0 / 1	600	300
Benzo(g,h,i)perylene						0 / 1	600	300
Benzo(k)fluoranthene	660	J	660	J	SD-WH-07-TR	1 / 1	720	660
Bis(2-Chloroethoxy)methane						0 / 1	600	300
Bis(2-Chloroethyl)ether						0 / 1	600	300
bis(2-Ethylhexyl)phthalate						0 / 1	600	300
Butylbenzylphthalate						0 / 1	600	300
Caprolactam						0 / 1	600	300
Carbazole						0 / 1	600	300
Chrysene						0 / 1	600	300
Dibenz(a,h)anthracene						0 / 1	600	300
Dibenzofuran						0 / 1	600	300
Diethylphthalate						0 / 1	600	300
Dimethylphthalate						0 / 1	600	300
Di-n-Butylphthalate						0 / 1	600	300
Di-n-octylphthalate						0 / 1	600	300
Fluoranthene						0 / 1	600	300
Fluorene						0 / 1	600	300
Hexachlorobenzene						0 / 1	600	300

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TABLE 2-107
SEDIMENT DATA SUMMARY - STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Hexachlorobutadiene sv						0 / 1	600	300
Hexachlorocyclopentadiene						0 / 1	600	300
Hexachloroethane						0 / 1	600	300
Indeno(1,2,3-cd)pyrene						0 / 1	600	300
Isophorone						0 / 1	600	300
Naphthalene sv						0 / 1	600	300
Nitrobenzene						0 / 1	600	300
N-Nitroso-di-n-propylamine						0 / 1	600	300
N-Nitrosodiphenylamine						0 / 1	600	300
Pentachlorophenol						0 / 1	1500	750
Phenanthrene						0 / 1	600	300
Phenol						0 / 1	600	300
Pyrene						0 / 1	600	300
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	4.9	2.5
4,4'-DDE						0 / 1	4.9	2.5
4,4'-DDT						0 / 1	4.9	2.5
Aldrin						0 / 1	2.5	1.3
alpha-BHC						0 / 1	2.5	1.3
alpha-Chlordane						0 / 1	2.5	1.3
Aroclor 1016						0 / 1	49	25
Aroclor 1221						0 / 1	99	50
Aroclor 1232						0 / 1	49	25
Aroclor 1242						0 / 1	49	25
Aroclor 1248						0 / 1	49	25
Aroclor 1254						0 / 1	49	25
Aroclor 1260						0 / 1	49	25
beta-BHC						0 / 1	2.5	1.3
delta-BHC						0 / 1	2.5	1.3
Dieldrin						0 / 1	4.9	2.5
Endosulfan I						0 / 1	2.5	1.3
Endosulfan II						0 / 1	4.9	2.5
Endosulfan Sulfate						0 / 1	4.9	2.5
Endrin						0 / 1	4.9	2.5
Endrin Aldehyde						0 / 1	4.9	2.5
Endrin Ketone						0 / 1	4.9	2.5
gamma-BHC (Lindane)						0 / 1	2.5	1.3
gamma-Chlordane						0 / 1	2.5	1.3
Heptachlor						0 / 1	2.5	1.3
Heptachlor Epoxide						0 / 1	2.5	1.3
Methoxychlor						0 / 1	25	13
Toxaphene						0 / 1	250	125
Metals - mg/Kg								
Aluminum	4720		17500		SD-WH-02	11 / 11	4.1266 - 9.14	10695
Antimony	9.9		35.4	J	SD-WH-09	11 / 11	0.4127 - 0.74	22
Arsenic	4.7		424		SD-WH-02	11 / 11	0.4127 - 1	114
Barium	53.9		132		SD-WH-05	11 / 11	0.4 - 0.4799	81
Beryllium	0.28	J	1.6		SD-WH-04	11 / 11	0.1651 - 0.2	0.92
Cadmium	0.87	J	15.1	J	SD-WH-01	11 / 11	0.1651 - 0.6	5.9
Calcium	10500		18700		SD-WH-09	11 / 11	2.14 - 9.5972	13995
Chromium	17.7		1170		SD-WH-02	11 / 11	0.4127 - 1	346
Cobalt	2.4	J	34.4		SD-WH-05	11 / 11	0.36 - 0.4799	12
Copper	23.8		572		SD-WH-02	11 / 11	0.4127 - 0.4799	248
Cyanide	0.26	J	1.1		SD-WH-05	9 / 10	0.2232 - 0.3788	0.57
Iron	4020		76600		SD-WH-05	11 / 11	1.4 - 3.5747	24718
Lead	771		2540		SD-WH-06	11 / 11	0.2476 - 0.6	1516
Magnesium	1140		3260		SD-WH-02	11 / 11	8.2533 - 15.18	2041
Manganese	51.9		747		SD-WH-05	11 / 11	0.24 - 0.4799	250

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TABLE 2-107
SEDIMENT DATA SUMMARY - STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Mercury	0.25	J	0.98	J	SD-WH-02	9 / 10	0.02 - 0.3294	0.54
Nickel	11.8		44		SD-WH-01	11 / 11	0.4127 - 0.8	24
Potassium	178	J	924		SD-WH-02	11 / 11	4.38 - 19.194	458
Selenium	1.55	J	4.1	J	SD-WH-04	11 / 11	0.1574 - 1	2.7
Silver	0.46	J	0.46	J	SD-WH-01	1 / 11	0.4 - 1	0.26
Sodium	394	J	973		SD-WH-09	11 / 11	41.266 - 98.04	671
Thallium	0.2225	J	1.5		SD-WH-01	9 / 11	0.236 - 1.1	0.56
Vanadium	32.3		163		SD-WH-04	11 / 11	0.4127 - 0.64	76
Zinc	181		3230		SD-WH-01	6 / 11	0.4127 - 634	978
AVS-SEM - mg/Kg								
Cadmium	3.6		3.6		SD-WH-07-TR	1 / 1	N/A	3.6
Copper	58		58		SD-WH-07-TR	1 / 1	N/A	58
Lead	1359		1359		SD-WH-07-TR	1 / 1	N/A	1359
Mercury	0.79	J	0.79	J	SD-WH-07-TR	1 / 1	N/A	0.79
Nickel	18		18		SD-WH-07-TR	1 / 1	N/A	18
SEM/AVS Ratio	3.3		3.3		SD-WH-07-TR	1 / 1	N/A	3.3
Sulfide	159		159		SD-WH-07-TR	1 / 1	N/A	159
Zinc	605		605		SD-WH-07-TR	1 / 1	N/A	605
Wet Parameters - mg/Kg								
Chromium VI						0 / 2	11.977 - 14.972	6.7
pH	6		6		SD-WH-01	2 / 2	N/A	5.9
Redox Potential	-43		-36		SD-WH-01	2 / 2	N/A	-40
Sulfide	183	J	674	J	SD-WH-01	2 / 2	9.21 - 28.8	429
Total Organic Carbon (mg/Kg)	815000	J	815000	J	SD-WH-07-TR	1 / 1	250	815000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-108
SEDIMENT DATA SUMMARY - STATION WS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	3570		13500		SD-WS-08	10 / 10	3.3362 - 4.7156	8500
Antimony	1.2	J	7.2	J	SD-WS-08	10 / 10	0.3336 - 0.4716	4.0
Arsenic	17.7		339		SD-WS-08	10 / 10	0.3336 - 0.4716	168
Barium	60.8		200		SD-WS-08	10 / 10	0.3336 - 0.4716	119
Beryllium	0.2	J	0.87		SD-WS-08	10 / 10	0.1334 - 0.1886	0.53
Cadmium	1.3		16.7		SD-WS-08	10 / 10	0.1334 - 0.1886	8.1
Calcium	7875	J	18300	J	SD-WS-08	10 / 10	6.6725 - 9.4312	13503
Chromium	67.7		1320		SD-WS-08	10 / 10	0.3336 - 0.4716	504
Cobalt	5.5		44.8		SD-WS-08	10 / 10	0.3336 - 0.4716	19
Copper	68		686		SD-WS-08	10 / 10	0.3336 - 0.4716	306
Cyanide	1.4	J	12.1	J	SD-WS-08	10 / 10	0.1443 - 0.567	3.6
Iron	12800	J	52400	J	SD-WS-08	10 / 10	1.3345 - 3.4992	29765
Lead	165		490		SD-WS-08	10 / 10	0.2002 - 0.2829	295
Magnesium	1560		3870		SD-WS-10	10 / 10	6.6725 - 9.4312	2719
Manganese	413	J	1420	J	SD-WS-06	10 / 10	0.3336 - 0.4716	1036
Mercury	0.22	J	1.8	J	SD-WS-02	8 / 8	0.1275 - 0.3418	0.98
Nickel	17.4	J	46.3	J	SD-WS-08	10 / 10	0.3336 - 0.4716	30
Potassium	429	J	1270		SD-WS-08	10 / 10	13.344 - 18.862	840
Selenium	0.79	J	3.8	J	SD-WS-08	10 / 10	0.1554 - 0.9153	2.1
Silver						0 / 10	0.33 - 0.4716	0.21
Sodium	631		1970		SD-WS-05	10 / 10	33.362 - 47.155	1037
Thallium	0.5	J	2.2	J	SD-WS-08	8 / 10	0.23 - 0.2746	0.76
Vanadium	22.2		56.1		SD-WS-08	10 / 10	0.3336 - 0.4716	37
Zinc	299		3440		SD-WS-08	10 / 10	0.3336 - 0.4716	1542

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-109
SEDIMENT DATA SUMMARY - STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1-Trichloroethane						0 / 1	110	55
Acetone	410	J	410	J	SD-WW-06-TR	1 / 1	10	410
Methylene Chloride						0 / 1	60	30
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 1	610	305
2,2'-oxybis(1-Chloropropane)						0 / 1	610	305
2,4,5-Trichlorophenol						0 / 1	1500	750
2,4,6-Trichlorophenol						0 / 1	610	305
2,4-Dichlorophenol						0 / 1	610	305
2,4-Dimethylphenol						0 / 1	610	305
2,4-Dinitrophenol						0 / 1	1500	750
2,4-Dinitrotoluene						0 / 1	610	305
2,6-Dinitrotoluene						0 / 1	610	305
2-Chloronaphthalene						0 / 1	610	305
2-Chlorophenol						0 / 1	610	305
2-Methylnaphthalene						0 / 1	610	305
2-Methylphenol						0 / 1	610	305
2-Nitroaniline						0 / 1	1500	750
2-Nitrophenol						0 / 1	610	305
3,3'-Dichlorobenzidine						0 / 1	610	305
3-Nitroaniline						0 / 1	610	305
4,6-Dinitro-2-methylphenol						0 / 1	1500	750
4-Bromophenyl-phenylether						0 / 1	610	305
4-Chloro-3-methylphenol						0 / 1	610	305
4-Chloroaniline						0 / 1	610	305
4-Chlorophenyl-phenyl ether						0 / 1	610	305
4-Nitroaniline						0 / 1	1500	750
4-Nitrophenol						0 / 1	1500	750
Acenaphthene						0 / 1	610	305
Acenaphthylene						0 / 1	610	305
Acetophenone						0 / 1	610	305
Anthracene						0 / 1	610	305
Atrazine						0 / 1	610	305
Benzaldehyde						0 / 1	610	305
Benzo(a)anthracene						0 / 1	610	305
Benzo(b)fluoranthene	330	J	330	J	SD-WW-06-TR	1 / 1	610	330
Benzo(g,h,i)perylene						0 / 1	610	305
Benzo(k)fluoranthene	610	J	610	J	SD-WW-06-TR	1 / 1	610	610
Bis(2-Chloroethoxy)methane						0 / 1	610	305
Bis(2-Chloroethyl)ether						0 / 1	610	305
bis(2-Ethylhexyl)phthalate						0 / 1	610	305
Butylbenzylphthalate						0 / 1	610	305
Caprolactam						0 / 1	610	305
Carbazole						0 / 1	610	305
Chrysene	300	J	300	J	SD-WW-06-TR	1 / 1	610	300
Dibenz(a,h)anthracene						0 / 1	610	305
Dibenzofuran						0 / 1	610	305
Diethylphthalate						0 / 1	610	305
Dimethylphthalate						0 / 1	610	305
Di-n-Butylphthalate						0 / 1	610	305
Di-n-octylphthalate						0 / 1	610	305
Fluoranthene	500	J	500	J	SD-WW-06-TR	1 / 1	610	500
Fluorene						0 / 1	610	305
Hexachlorobenzene						0 / 1	610	305

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TABLE 2-109
SEDIMENT DATA SUMMARY - STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Hexachlorobutadiene sv						0 / 1	610	305
Hexachlorocyclopentadiene						0 / 1	610	305
Hexachloroethane						0 / 1	610	305
Indeno(1,2,3-cd)pyrene						0 / 1	610	305
Isophorone						0 / 1	610	305
Naphthalene sv						0 / 1	610	305
Nitrobenzene						0 / 1	610	305
N-Nitroso-di-n-propylamine						0 / 1	610	305
N-Nitrosodiphenylamine						0 / 1	610	305
Pentachlorophenol						0 / 1	1500	750
Phenanthrene						0 / 1	610	305
Phenol						0 / 1	610	305
Pyrene	480	J	480	J	SD-WW-06-TR	1 / 1	610	480
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	5	2.5
4,4'-DDE	2.1	J	2.1	J	SD-WW-06-TR	1 / 1	5	2.1
4,4'-DDT						0 / 1	5	2.5
Aldrin						0 / 1	2.5	1.3
alpha-BHC						0 / 1	2.5	1.3
alpha-Chlordane						0 / 1	2.5	1.3
Aroclor 1016						0 / 1	50	25
Aroclor 1221						0 / 1	99	50
Aroclor 1232						0 / 1	50	25
Aroclor 1242						0 / 1	50	25
Aroclor 1248						0 / 1	50	25
Aroclor 1254						0 / 1	50	25
Aroclor 1260						0 / 1	50	25
beta-BHC						0 / 1	2.5	1.3
delta-BHC						0 / 1	2.5	1.3
Dieldrin						0 / 1	5	2.5
Endosulfan I						0 / 1	2.5	1.3
Endosulfan II						0 / 1	5	2.5
Endosulfan Sulfate						0 / 1	5	2.5
Endrin						0 / 1	5	2.5
Endrin Aldehyde						0 / 1	5	2.5
Endrin Ketone						0 / 1	5	2.5
gamma-BHC (Lindane)						0 / 1	2.5	1.3
gamma-Chlordane						0 / 1	2.5	1.3
Heptachlor						0 / 1	2.5	1.3
Heptachlor Epoxide						0 / 1	2.5	1.3
Methoxychlor						0 / 1	25	13
Toxaphene						0 / 1	250	125
Metals - mg/Kg								
Aluminum	6160		13800		SD-WW-12	14 / 14	9.14	10426
Antimony	57.3	J	57.3	J	SD-WW-06-TR	1 / 2	0.74 - 2	29
Arsenic	4.4	J	54.6	J	SD-WW-09	14 / 14	1	41
Barium	124		3420		SD-WW-11	14 / 14	0.4	444
Beryllium	0.77	J	0.885		SD-WW-01	3 / 14	0.02 - 0.65	0.31
Cadmium	2.8	J	9.6	J	SD-WW-02	13 / 14	0.048 - 0.6	4.0
Calcium	4220		16200		SD-WW-06-TR	14 / 14	2.14	10790
Chromium	3670	J	24600	J	SD-WW-08	14 / 14	1	12365
Cobalt	6.4		21		SD-WW-09	14 / 14	0.36	12
Copper	178		598		SD-WW-02	14 / 14	0.44	349
Iron	6740		20000		SD-WW-03	14 / 14	1.4	11956
Lead	147	J	495	J	SD-WW-07	14 / 14	0.6	301
Magnesium	1200		2540		SD-WW-12	14 / 14	15.18	2053
Manganese	95.4		803		SD-WW-03	14 / 14	0.24	329
Mercury	0.46		1.8		SD-WW-01	13 / 14	0.09 - 0.24	1.0

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TABLE 2-109
SEDIMENT DATA SUMMARY - STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Nickel	18.9		28.9		SD-WW-08	14 / 14	0.8	23
Potassium	235		484		SD-WW-10	14 / 14	4.38	362
Selenium	3.2	J	5.95	J	SD-WW-01	12 / 14	1 - 5	4.3
Silver						0 / 14	0.35 - 1.2	0.36
Sodium	1400		2350		SD-WW-08	13 / 14	98.04 - 579	1634
Thallium	0.86	J	2.7	J	SD-WW-08	10 / 14	0.65 - 3	1.2
Vanadium	39.8		103		SD-WW-04	14 / 14	0.64	68
Zinc	888	J	1890		SD-WW-08	14 / 14	1.7	1210
AVS-SEM - mg/Kg								
Cadmium	3.2		3.2		SD-WW-06-TR	1 / 1	N/A	3.2
Copper	83		83		SD-WW-06-TR	1 / 1	N/A	83
Lead	237		237		SD-WW-06-TR	1 / 1	N/A	237
Mercury	1.6	J	1.6	J	SD-WW-06-TR	1 / 1	N/A	1.6
Nickel	14		14		SD-WW-06-TR	1 / 1	N/A	14
SEM/AVS Ratio	24		24		SD-WW-06-TR	1 / 1	N/A	24
Sulfide	21		21		SD-WW-06-TR	1 / 1	N/A	21
Zinc	906		906		SD-WW-06-TR	1 / 1	N/A	906
Wet Parameters - mg/Kg								
pH	6.03		6.03		SD-WW-08	1 / 1	0	6.0
Redox Potential	341		341		SD-WW-08	1 / 1	N/A	341
Sulfide	180	J	180	J	SD-WW-08	1 / 1	0.018	180
Total Organic Carbon (mg/Kg)	760000	J	760000	J	SD-WW-06-TR	1 / 1	250	760000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-110
SEDIMENT DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
1,1,1,2-Tetrachloroethane						0 / 26	4 - 225	12
1,1,1-Trichloroethane	59	J	110	J	SD-TT-30-01-TR	3 / 100	11 - 343	34
1,1,2,2-Tetrachloroethane						0 / 87	9 - 114	15
1,1,2-Trichloro-1,2,2-trifluoroetha	37.5	J	37.5	J	SD-UF-02-TR	1 / 5	22 - 92	21
1,1,2-Trichloroethane						0 / 87	9 - 114	15
1,1-Dichloroethane	3	J	3	J	SD-18-01-FW	1 / 87	11 - 343	32
1,1-Dichloroethene						0 / 87	11 - 343	32
1,2,4-Trichlorobenzene						0 / 2	22 - 35	14
1,2-Dibromo-3-chloropropane						0 / 2	22 - 35	14
1,2-Dibromoethane						0 / 2	22 - 35	14
1,2-Dichlorobenzene						0 / 2	22 - 35	14
1,2-Dichloroethane						0 / 87	11 - 343	32
1,2-Dichloroethene(total)	9	J	59		SD-18-01-FW	8 / 65	11 - 29	10
1,2-Dichloropropane						0 / 61	11 - 35	8.7
1,3-Dichlorobenzene						0 / 2	22 - 35	14
1,4-Dichlorobenzene						0 / 2	22 - 35	14
2-Butanone	9	J	290	J	SD-19-01-FW	22 / 71	11 - 50	34
2-Hexanone						0 / 61	11 - 35	8.7
4-Methyl-2-pentanone						0 / 61	11 - 35	8.7
Acetone	58	J	7300	J	SD-TT-30-01-TR	22 / 81	10 - 430	317
Benzene	6	J	22	J	SD-21-01-ME	8 / 87	4 - 225	10
Bromodichloromethane						0 / 61	11 - 35	8.7
Bromoform						0 / 61	11 - 35	8.7
Bromomethane						0 / 61	11 - 35	8.7
Carbon Disulfide	18	J	29	J	SD-10-02-TR	3 / 63	11 - 35	9.2
Carbon Tetrachloride						0 / 61	11 - 35	8.7
Chlorobenzene						0 / 61	11 - 35	8.7
Chloroethane						0 / 61	11 - 35	8.7
Chloroform						0 / 87	9 - 224	16
Chloromethane						0 / 61	11 - 35	8.7
cis-1,2-Dichloroethene	7	J	562	J	SD-20-01-ME	18 / 28	9 - 225	78
cis-1,3-Dichloropropene						0 / 61	11 - 35	8.7
Cyclohexane						0 / 2	22 - 35	14
Dibromochloromethane						0 / 61	11 - 35	8.7
Dichlorodifluoromethane						0 / 2	22 - 35	14
Ethylbenzene	5	J	9	J	SD-06-03-ME	4 / 87	4 - 46	10
Isopropylbenzene						0 / 2	22 - 35	14
Methyl Acetate	35	J	530	J	SD-TT-30-01-TR	4 / 6	22 - 92	147
Methyl tert-Butyl Ether						0 / 2	22 - 35	14
Methylcyclohexane						0 / 2	22 - 35	14
Methylene chloride	28	J	100	J	SD-22-03-FW	2 / 101	11 - 343	38
Naphthalene	17	J	208.25	J	SD-21-01-ME	3 / 26	28 - 343	93
Styrene						0 / 61	11 - 35	8.7
Tetrachloroethene	41	J	3164		SD-22-02-ME	5 / 90	11 - 790	82
Toluene	3	J	22	J	SD-TT-30-01-TR	3 / 63	11 - 50	9.0
trans-1,2-Dichloroethene	387		387		SD-11-01-ME	1 / 28	22 - 343	93
trans-1,3-Dichloropropene						0 / 61	11 - 35	8.7
Trichloroethene	6	J	2025	J	SD-20-01-ME	18 / 91	9 - 114	51
Trichlorofluoromethane						0 / 2	22 - 35	14
Vinyl chloride	2	J	255	J	SD-11-01-ME	2 / 87	11 - 343	34
Xylene, m/p-	10	J	25	J	SD-06-03-ME	2 / 28	9 - 114	28
Xylene, o-						0 / 28	9 - 114	28
Xylenes (total)						0 / 59	11 - 29	8.5

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TABLE 2-110
SEDIMENT DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,1'-Biphenyl						0 / 13	130 - 720	217
1,2,4-Trichlorobenzene sv						0 / 59	370 - 2900	371
1,2-Dichlorobenzene						0 / 59	370 - 2900	371
1,3-Dichlorobenzene						0 / 59	370 - 2900	371
1,4-Dichlorobenzene						0 / 59	370 - 2900	371
2,2'-oxybis(1-Chloropropane)						0 / 72	130 - 2900	343
2,4,5-Trichlorophenol						0 / 72	330 - 7300	853
2,4,6-Trichlorophenol						0 / 72	130 - 2900	343
2,4-Dichlorophenol						0 / 72	130 - 2900	343
2,4-Dimethylphenol						0 / 72	130 - 2900	343
2,4-Dinitrophenol						0 / 72	330 - 7300	853
2,4-Dinitrotoluene						0 / 72	130 - 2900	343
2,6-Dinitrotoluene						0 / 72	130 - 2900	343
2-Chloronaphthalene						0 / 72	130 - 2900	343
2-Chlorophenol						0 / 72	130 - 2900	343
2-Methylnaphthalene	10	J	220	J	SD-09-06-FW	28 / 98	1 - 2900	254
2-Methylphenol						0 / 72	130 - 2900	343
2-Nitroaniline						0 / 72	330 - 7300	853
2-Nitrophenol						0 / 72	130 - 2900	343
3,3'-Dichlorobenzidine						0 / 72	130 - 2900	343
3+4-Methylphenols						0 / 5	280 - 630	231
3-Nitroaniline						0 / 72	130 - 7300	801
4,6-Dinitro-2-methylphenol						0 / 72	330 - 7300	853
4-Bromophenyl-phenylether						0 / 72	130 - 2900	343
4-Chloro-3-methylphenol						0 / 72	130 - 2900	343
4-Chloroaniline						0 / 72	130 - 2900	343
4-Chlorophenyl-phenyl ether						0 / 72	130 - 2900	343
4-Methylphenol						0 / 59	370 - 2900	371
4-Nitroaniline						0 / 72	330 - 7300	853
4-Nitrophenol						0 / 72	330 - 7300	853
Acenaphthene	3	J	520		SD-09-06-FW	39 / 99	1 - 2900	237
Acenaphthylene	1	J	480	J	SD-07-10-FW	38 / 98	1 - 2900	245
Acetophenone						0 / 13	130 - 720	217
Anthracene	18	J	1300	J	SD-06-03-FW	55 / 99	67 - 2300	309
Atrazine						0 / 13	130 - 720	217
Benzaldehyde						0 / 13	130 - 720	217
Benzo(a)anthracene	40	J	9600		SD-07-10-ME	85 / 109	67 - 890	1033
Benzo(a)pyrene	33	J	10000		SD-07-10-ME	84 / 106	67 - 2100	1093
Benzo(b)fluoranthene	45	J	16000	J	SD-07-10-ME	95 / 116	67 - 870	1642
Benzo(g,h,i)perylene	44	J	5300		SD-07-10-ME	62 / 103	10 - 2300	636
Benzo(k)fluoranthene	45	J	14000	J	SD-07-05-FW	84 / 109	67 - 2300	1200
bis(2-Chloroethoxy)methane						0 / 72	130 - 2900	343
bis(2-Chloroethyl)ether						0 / 72	130 - 2900	343
bis(2-Ethylhexyl)phthalate	64	J	13000	J	SD-07-05-FW	49 / 89	130 - 3300	1211
Butylbenzylphthalate	130	J	620	J	SD-07-05-FW	9 / 74	130 - 2900	312
Caprolactam						0 / 13	130 - 720	217
Carbazole	63	J	680	J	SD-07-09-FW	19 / 74	130 - 2900	304
Chrysene	40	J	10000		SD-07-10-ME	88 / 110	67 - 890	1307
Dibenz(a,h)anthracene	44	J	2000		SD-07-10-ME	42 / 100	2 - 2900	331
Dibenzofuran	56	J	500		SD-09-06-FW	8 / 72	130 - 2900	319
Diethylphthalate	240	J	240	J	SD-07-04-FW	1 / 72	130 - 2900	341
Dimethylphthalate						0 / 72	130 - 2900	343
Di-n-butylphthalate						0 / 72	130 - 2900	353
Di-n-octylphthalate	140	J	430	J	SD-07-05-FW	3 / 73	130 - 2900	333
Fluoranthene	42	J	23000		SD-07-10-ME	102 / 116	67 - 890	2258

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TABLE 2-110
SEDIMENT DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Fluorene	14	J	810		SD-09-06-FW	46 / 99	1 - 2300	265
Hexachlorobenzene						0 / 72	130 - 2900	343
Hexachlorobutadiene sv						0 / 72	130 - 2900	343
Hexachlorocyclopentadiene						0 / 72	130 - 2900	343
Hexachloroethane						0 / 72	130 - 2900	343
Indeno(1,2,3-cd)pyrene	21	J	6900		SD-07-10-ME	69 / 106	67 - 2300	678
Isophorone						0 / 72	130 - 2900	343
Naphthalene	12	J	2500	J	SD-21-02-FW	36 / 99	1 - 2900	282
Nitrobenzene						0 / 72	130 - 2900	343
N-Nitroso-di-n-propylamine						0 / 72	130 - 2900	343
N-nitrosodiphenylamine	58	J	560	J	SD-10-01-FW	7 / 75	130 - 2900	345
Pentachlorophenol						0 / 72	330 - 7300	853
Phenanthrene	62	J	12000		SD-07-10-ME	81 / 106	67 - 890	1155
Phenol						0 / 72	130 - 2900	343
Pyrene	52	J	15000		SD-07-10-ME	100 / 114	67 - 870	1837
PCBs/Pesticides - ug/Kg								
2,4'-DDT						0 / 25	0.31 - 3.9	0.77
4,4'-DDD	0.46	J	310		SD-13-03-ME	74 / 111	0.31 - 43	27
4,4'-DDE	0.089	J	160	J	SD-10-01-ME	91 / 115	0.31 - 43	20
4,4'-DDT	0.29	J	47		SD-07-10-FW	62 / 104	0.31 - 49	6.7
Aldrin	0.12	J	18	J	SD-10-01-ME	23 / 96	0.15 - 25	1.9
alpha-BHC	0.11	J	2.7	J	SD-07-02-FW	14 / 98	0.15 - 25	1.6
alpha-Chlordane	0.28	J	93		SD-13-03-ME	71 / 111	0.15 - 22	12
Aroclor 1016						0 / 103	2.6 - 490	41
Aroclor 1221						0 / 103	5.2 - 990	71
Aroclor 1232						0 / 103	2.6 - 490	41
Aroclor 1242						0 / 103	2.6 - 490	41
Aroclor 1248	8.1	J	560	J	SD-10-01-ME	26 / 103	2.6 - 490	68
Aroclor 1254	45		2600		SD-JY-07	10 / 103	2.6 - 490	118
Aroclor 1260	11		2400		SD-JY-07	38 / 105	2.6 - 490	155
Aroclor 1262						0 / 10	190 - 440	122
Aroclor 1268						0 / 10	190 - 440	122
beta-BHC	0.1	J	6.6		SD-07-07-FW	19 / 101	0.15 - 25	1.9
delta-BHC	0.08	J	25	J	SD-06-03-ME	21 / 95	0.15 - 25	2.5
Dieldrin	0.19	J	20	J	SD-14-03-FW	54 / 103	0.31 - 49	3.6
Endosulfan I	0.11	J	68	J	SD-21-01-FW	23 / 105	0.15 - 25	4.2
Endosulfan II	0.21	J	8.4	J	SD-07-09-FW	23 / 96	0.31 - 49	3.3
Endosulfan Sulfate	0.33	J	3.9	J	SD-07-04-FW	9 / 94	0.31 - 49	3.4
Endrin	0.087	J	17	J	SD-06-03-ME	43 / 101	0.31 - 49	4.1
Endrin Aldehyde	0.47	J	27	J	SD-07-02-ME	34 / 97	0.31 - 49	4.3
Endrin Ketone	1.8	J	2.9	J	SD-08-02-FW	4 / 93	0.31 - 49	3.4
gamma-BHC (Lindane)	0.23	J	1.4	J	SD-07-02-FW	4 / 93	0.15 - 25	1.7
gamma-Chlordane	0.12	J	650	J	SD-13-03-ME	66 / 108	0.15 - 25	14
Heptachlor	0.067	J	1.6	J	SD-07-06-FW	12 / 93	0.15 - 25	1.6
Heptachlor Epoxide	0.17	J	4.9	J	SD-22-01-FW	21 / 96	0.15 - 25	1.8
Methoxychlor	6.3	J	12	J	SD-07-10-FW	3 / 93	1.5 - 250	17
Toxaphene						0 / 93	15 - 2500	176
Metals - mg/Kg								
Aluminum	1865		34400	J	SD-13-02-FW	327 / 327	3.1012 - 370	10496
Antimony	0.325	J	329	J	SD-TT-22-01	190 / 289	0.067 - 103	6.8
Arsenic	2.4		4550		SD-12-03-ME	324 / 325	0.22 - 406	245
Barium	6		3420		SD-WW-11	325 / 327	0.018 - 35.9	90
Beryllium	0.12		2.9		SD-19-01-ME	269 / 323	0.016 - 4.75	0.68
Cadmium	0.045		37.7		SD-01-06-FW	293 / 326	0.0048 - 22.7	6.3
Calcium	493		30500	J	SD-22-03-FW	327 / 327	1.6 - 677	6375
Chromium	3.3	J	24600	J	SD-WW-08	327 / 327	0.055 - 63.7	1016
Cobalt	0.79		130	J	SD-CB-03-06	327 / 327	0.3101 - 100	15
Copper	4.2	J	3760	J	SD-TT-30-03	327 / 327	0.082 - 45	364

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TABLE 2-110
SEDIMENT DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Cyanide	0.26	J	12.1	J	SD-WS-08	57 / 122	0.0942 - 2	1.0
Iron	2310	J	258000		SD-19-01-TR	327 / 327	0.57 - 2406	26809
Lead	1.9	J	41000	J	SD-TT-22-01	327 / 327	0.1861 - 75	512
Magnesium	184	J	12900		SD-LM-01	327 / 327	0.82 - 855	2480
Manganese	34.4	J	3060		SD-UM-02	327 / 327	0.018 - 12.7	471
Mercury	0.05	J	89.2	J	SD-TT-30-03	285 / 316	0.0037 - 100	2.1
Nickel	0.59	J	177		SD-CB-04-03	323 / 327	0.15 - 63	22
Potassium	84	J	4390		SD-LM-01	304 / 325	2.7 - 4930	621
Selenium	0.53	J	30.3		SD-12-03-ME	220 / 323	0.052 - 498	3.0
Silver	0.18	J	11.5		SD-CB-04-02	96 / 290	0.0094 - 41.7	0.54
Sodium	30.85	J	8880	J	SD-CB-03-06	259 / 315	0.22 - 733	773
Thallium	0.2225	J	18.1	J	SD-BW-03	141 / 300	0.038 - 400	1.2
Vanadium	4.2		180		SD-UM-02	327 / 327	0.073 - 87	45
Zinc	15.2		8750		SD-CB-04-03	322 / 327	0.16 - 634	1250
AVS-SEM - mg/Kg								
Arsenic	3.7	J	339	J	SD-10-02-ME	21 / 26	3.745	73
Cadmium	0.21	J	78		SD-12-03-TR	83 / 124	0.1 - 11.2	6.8
Copper	4.0	J	2270	J	SD-13-01-FW	89 / 124	1.79 - 138	189
Lead	6.9		4227	J	SD-22-02-ME	123 / 124	2.5 - 34	322
Mercury	0.010		1.9	J	SD-18-02-TR	34 / 113	0.003 - 10.03	0.77
Nickel	0.80		334	J	SD-19-02-FW	68 / 124	1.32 - 340	38
SEM/AVS Ratio	0		468		SD-22-02-ME	124 / 124	32.2 - 45.7	11
Sulfide	2.6		26964		SD-11-02-FW	121 / 124	1 - 2.5359	1450
Zinc	24	J	11800		SD-11-01-FW	124 / 124	1.7 - 8.5	1174
Wet Parameters - mg/Kg								
Chromium VI						0 / 21	1.29 - 19.649	4.4
pH	5.15		7.04		SD-LM-01	32 / 32	0	6.2
Redox Potential	-79		374		SD-CB-02-09	32 / 32	N/A	78
Sulfide	29.6	J	2840	J	SD-AO-02	32 / 32	0.018 - 55.6	584
Total Combustible Organics (mg/Kg)	1390		912000	J	SD-12-01-ME	77 / 80	117 - 2000	195505
Total Organic Carbon (mg/Kg)	602		815000	J	SD-WH-07-TR	104 / 110	114 - 18500	127765

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-111
SEDIMENT DATA HITS TABLE - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-01-FW	SD-01-02-FW	SD-01-03-FW	SD-01-04-FW	SD-01-05-FW	SD-01-06-FW	SD-01-06-ME	SD-01-07-FW	SD-01-07-ME
VOCs (ug/Kg)									
2-Butanone	11 UJ	12 J	11 UJ	20 J	12 UJ	26 UJ	NA	14 UJ	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	62 J	NA	58 J
Trichloroethene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	37 J	14 UJ	76 UJ
SVOCs (ug/Kg)									
2-Methylnaphthalene	370 U	380 U	380 U	420 U	400 U	870 UJ	20 J	480 U	20 J
Acenaphthene	370 U	380 U	65 J	420 U	400 U	870 UJ	33 J	480 U	32 J
Acenaphthylene	370 U	380 U	380 U	420 U	400 U	870 UJ	33 J	480 U	37 J
Anthracene	43 J	380 U	120 J	27 J	400 U	150 J	92	480 U	100
Benzo(a)anthracene	120 J	380 U	250 J	90 J	400 U	650 J	1000	100 J	1100
Benzo(a)pyrene	93 J	380 U	210 J	89 J	400 U	850 J	930	130 J	920
Benzo(b)fluoranthene	98 J	380 U	170 J	90 J	400 U	1100 J	1400	150 J	1600
Benzo(g,h,i)perylene	370 U	380 U	120 J	420 U	400 U	1000 J	480	140 J	510
Benzo(k)fluoranthene	100 J	380 U	210 J	94 J	400 U	840 J	730	160 J	690
Carbazole	370 U	380 U	74 J	420 U	400 U	870 UJ	NA	480 U	NA
Chrysene	160 J	380 U	290 J	130 J	400 U	1100 J	880	150 J	980
Dibenz(a,h)anthracene	370 U	380 U	380 U	420 U	400 U	870 UJ	120	480 U	110
Fluoranthene	300 J	110 J	550 J	240 J	400 U	1500 J	2100	210 J	2200
Fluorene	370 U	380 U	54 J	420 U	400 U	870 UJ	89	480 U	89
Indeno(1,2,3-cd)pyrene	370 U	380 U	120 J	420 U	400 U	880 J	580	130 J	640
Naphthalene	370 U	380 U	380 U	420 U	400 U	870 UJ	24 J	480 U	23 J
Phenanthrene	290 J	100 J	500 J	200 J	400 U	590 J	840	74 J	900
Pyrene	290 J	130 J	580 J	250 J	400 U	1400 J	1900	260 J	1900
PCB/Pesticides (ug/Kg)									
4,4'-DDD	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	16 J	4.8 U	18 J
4,4'-DDE	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	24	4.8 U	28
4,4'-DDT	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	2.5 J	4.8 U	3.2 J
Aldrin	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.21 J
alpha-BHC	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.17 J
alpha-Chlordane	9.6 U	2 U	2 U	2.2 U	2 U	22 U	9.3 J	2.5 U	10 J
Aroclor 1248	190 U	38 U	38 U	42 U	40 U	430 U	46 J	48 U	70 J
Aroclor 1260	190 U	38 U	38 U	42 U	40 U	430 U	47	48 U	69 J
delta-BHC	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.19 J	2.5 U	0.16 U
Dieldrin	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.5 J	4.8 U	0.61 J
Endosulfan II	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.41	4.8 U	0.66
Endosulfan sulfate	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.67 J	4.8 U	0.78 J
Endrin	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	1.2 J	4.8 U	1.8 J
Endrin aldehyde	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	3.4 J	4.8 U	3.2 J
gamma-Chlordane	9.6 U	2 U	2 U	2.2 U	2 U	22 U	6.4 J	2.5 U	6.8 J
Metals (mg/Kg)									
Aluminum	2970	3000	3750	3290	3340	19000	12200 J	6770	13200 J
Antimony	0.55 J	0.5 UJ	0.93999 J	0.48 UJ	0.44 UJ	2.2 J	1.7 J	0.53 J	1.8 J
Arsenic	3.1	2.4	5	3	6.2	171	78.1	63.3	111
Barium	9.5	8.1	10.8	10.7	12.6	53.1	85.8	29.6	95.1
Beryllium	0.12 U	0.075 U	0.21 U	0.059 U	0.08599 U	1	0.87 J	0.3 U	0.98 J
Cadmium	0.046 U	0.045	0.18	0.092	0.089	37.7	6.8	3.9	8.5
Calcium	972	1040	1230	1050	840	3510	5420	1810	7510
Chromium	7.2	7.5	9.3	7.1	9.8	95.9	148 J	18.3	192 J
Cobalt	2.8	2.9	4.6	3.2	3.8	38.9	27.9 J	14.8	33.1 J
Copper	6.7	5.8	8.6	8.1	15	1250	305	155	436
Iron	5050	4960	6800	4830	7490	20000	31800 J	13200	32500 J
Lead	9 J	7.9 J	12.2 J	10.4 J	39.9 J	384 J	413 J	122 J	477 J
Magnesium	1310	1620	1940	1460	1320	3520	3480	2030	3430
Manganese	72.3	68.9	90.9	74.9	103	327	479	123	595
Mercury	0.022 UJ	0.025 UJ	0.018 U	0.028 U	0.023 U	0.63	1	0.095 U	1.1
Nickel	4.9	5.1	7.2	5.2	7	24.7	40.4 J	10.4	41.3 J
Potassium	380 J	396 J	436 J	449 J	351 J	937 J	1190 J	1030 J	1170 J
Selenium	0.68 UJ	0.62 UJ	0.43 UJ	0.59 UJ	0.55 UJ	2.2 UJ	5.1 J	0.66 UJ	1.4 J
Silver	0.34 U	0.31 U	0.51	0.3 U	0.28 U	0.7 U	0.75 J	0.33 U	0.66 J
Sodium	59.2 U	53.7 U	37.4 U	51.6 U	47.8 U	1080	583	165	611
Thallium	0.8 U	0.72 U	0.54	0.68999 U	0.64 U	2.9	0.63 UJ	1	0.43 UJ
Vanadium	9.4	7.8	11.6	8.5	10.1	34.6	56.4	15.8	55.3
Zinc	46.1	53.9	82.9	81.4	127	7380	2080 J	1470	2370 J

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TABLE 2-111
SEDIMENT DATA HITS TABLE - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-01-FW	SD-01-02-FW	SD-01-03-FW	SD-01-04-FW	SD-01-05-FW	SD-01-06-FW	SD-01-06-ME	SD-01-07-FW	SD-01-07-ME
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	4.494 J	NA	8.239 J
Cadmium	0.74	0.2 U	0.14 UJ	0.28 U	0.21 U	33.6	8.96 UJ	3.8	10.08 J
Copper	2.7 U	4.4 U	9 U	14.6 U	33.7 U	635 J	3.175 UJ	84.2 U	5.08 J
Lead	8	6.9	11.8	33.1	31	372	387.464 J	56	441.336 J
Mercury	0.003 U	0.003 U	0.02	0.14	0.04	0.01 U	10.03 U	0.004 U	10.03 U
Nickel	1.5 U	4 U	24.2 U	53.9 U	52 U	88.4 U	50.4734 J	5.7 U	13.4987 J
SEM/AVS Ratio	0.27	3.3	0.92	2.0	0.12	0.5	0.41	0.54	0.4
Sulfide	70.62 J	9.309 J	39.162 J	27.927 J	526.44 J	7094.1 J	2311.2	1325.73 J	2564.79
Zinc	36.3	59.5	69.7	104	118	6430	1746.35 J	1440	1930.87 J
TOC/TCO (mg/Kg)									
Total Organic Carbon	114 U	2100	114 U	17000	116 U	65700	NA	9100	NA
Total Combustible Organics	NA	NA	NA	NA	NA	NA	230000 J	NA	152000 J

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TABLE 2-111
SEDIMENT DATA HITS TABLE - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-08-FW	SD-01-09-FW	SD-01-10-FW
VOCs (ug/Kg)			
2-Butanone	12 UJ	13 UJ	14 UJ
cis-1,2-Dichloroethene	NA	NA	NA
Trichloroethene	12 UJ	13 UJ	14 UJ
SVOCs (ug/Kg)			
2-Methylnaphthalene	390 U	420 U	480 U
Acenaphthene	390 U	420 U	480 U
Acenaphthylene	390 U	420 U	480 U
Anthracene	390 U	420 U	480 U
Benzo(a)anthracene	390 U	420 U	190 J
Benzo(a)pyrene	390 U	420 U	280 J
Benzo(b)fluoranthene	390 U	420 U	350 J
Benzo(g,h,i)perylene	390 U	420 U	310 J
Benzo(k)fluoranthene	390 U	420 U	290 J
Carbazole	390 U	420 U	480 U
Chrysene	390 U	420 U	340 J
Dibenz(a,h)anthracene	390 U	420 U	480 U
Fluoranthene	390 U	420 U	390 J
Fluorene	390 U	420 U	480 U
Indeno(1,2,3-cd)pyrene	390 U	420 U	270 J
Naphthalene	390 U	420 U	480 U
Phenanthrene	390 U	420 U	170 J
Pyrene	390 U	420 U	550 J
PCB/Pesticides (ug/Kg)			
4,4'-DDD	3.9 U	4.2 U	4.8 U
4,4'-DDE	3.9 U	4.2 U	7.9 J
4,4'-DDT	3.9 U	4.2 U	4.8 U
Aldrin	2 U	2.2 U	2.5 U
alpha-BHC	2 U	2.2 U	2.5 U
alpha-Chlordane	2 U	2.2 U	2.5 U
Aroclor 1248	39 U	42 U	48 U
Aroclor 1260	39 U	42 U	48 U
delta-BHC	2 U	2.2 U	2.5 U
Dieldrin	3.9 U	4.2 U	4.8 U
Endosulfan II	3.9 U	4.2 U	4.8 U
Endosulfan sulfate	3.9 U	4.2 U	4.8 U
Endrin	3.9 U	4.2 U	4.8 U
Endrin aldehyde	3.9 U	4.2 U	4.8 U
gamma-Chlordane	2 U	2.2 U	2.5 U
Metals (mg/Kg)			
Aluminum	4040	3240	5860
Antimony	0.49 UJ	0.48 UJ	0.63 UJ
Arsenic	4.2	5.5	14
Barium	9.6	8.8	31
Beryllium	0.076 U	0.078 U	0.13 U
Cadmium	0.041 U	0.25	2.8
Calcium	493	514	1160
Chromium	7	6.9	15
Cobalt	2.8	2.6	8.5
Copper	16.6	28.4	102
Iron	5660	3830	9220
Lead	14.6 J	19.1 J	33.5 J
Magnesium	1360	913	2430
Manganese	60.4	48.5	116
Mercury	0.015 UJ	0.024 U	0.2
Nickel	6.4	4.8	8.1
Potassium	288 J	224 J	1160 J
Selenium	0.61 UJ	0.6 UJ	0.79 UJ
Silver	0.3 U	0.3 U	0.39 U
Sodium	52.7 U	51.6 U	68.2 U
Thallium	0.71 U	0.68999 U	0.92 U
Vanadium	7.3	6.5	16.3
Zinc	153	158	7670

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TABLE 2-111
SEDIMENT DATA HITS TABLE - STATION 01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-08-FW	SD-01-09-FW	SD-01-10-FW
AVS-SEM (mg/Kg)			
Arsenic	NA	NA	NA
Cadmium	1.8	0.44 U	5.8
Copper	9.6 U	14.3 U	93.9 U
Lead	14.9	19.6	55.2
Mercury	0.01	0.004 U	0.004 U
Nickel	1.8 U	2.2 U	4 U
SEM/AVS Ratio	3.8	3.7	0.71
Sulfide	12.84 J	19.26 J	940.53 J
Zinc	92.8	139	1340
TOC/TCO (mg/Kg)			
Total Organic Carbon	830	2410	11000
Total Combustible Organics	NA	NA	NA

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TABLE 2-112
SEDIMENT DATA HITS TABLE - STATION 02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-02-01-FW	SD-02-01-ME	SD-02-02-FW	SD-02-02-ME	SD-02-03-FW
VOCs (ug/Kg)					
2-Butanone	9 J	NA	12 U	NA	12 U
SVOCs (ug/Kg)					
2-Methylnaphthalene	410 U	12 J	410 U	20 J	410 U
Acenaphthene	410 U	11 J	410 U	30 J	410 U
Acenaphthylene	410 U	22 J	410 U	57 J	410 U
Anthracene	75 J	62 J	410 U	140	410 U
Benzo(a)anthracene	168 J	590	410 U	1500	410 U
Benzo(a)pyrene	190 J	620	410 U	1400	410 U
Benzo(b)fluoranthene	180 J	720	410 U	1700	410 U
Benzo(g,h,i)perylene	155 J	330	410 U	640	410 U
Benzo(k)fluoranthene	160 J	340	410 U	710	410 U
Chrysene	275 J	660	410 U	1400	410 U
Dibenz(a,h)anthracene	410 U	69 J	410 U	150	410 U
Fluoranthene	315 J	1200	410 U	3000	410 U
Fluorene	410 U	44 J	410 U	97	410 U
Indeno(1,2,3-cd)pyrene	130.5 J	420	410 U	860	410 U
Naphthalene	410 U	13 J	410 U	24 J	410 U
Phenanthrene	210 J	390	410 U	970	410 U
Pyrene	420 J	1100	410 U	2500	410 U
PCB/Pesticides (ug/Kg)					
4,4'-DDD	3.875 J	20 J	4.1 U	25 J	4.1 U
4,4'-DDE	10.35 J	26 J	4.1 U	30	4.1 U
4,4'-DDT	4.1 U	1.8 J	4.1 U	2.4 J	4.1 U
alpha-Chlordane	2.1 U	11 J	2.1 U	16	2.1 U
Aroclor 1248	41 U	160 J	41 U	180 J	41 U
Aroclor 1260	41 U	140	41 U	170	41 U
delta-BHC	2.1 U	1.3 J	2.1 U	0.16 U	2.1 U
Dieldrin	4.1 U	0.45 J	4.1 U	0.47	4.1 U
Endosulfan II	4.1 U	0.21 J	4.1 U	0.28	4.1 U
Endosulfan sulfate	4.1 U	0.47 J	4.1 U	0.33 U	4.1 U
Endrin	4.1 U	1.3 J	4.1 U	1.9	4.1 U
Endrin aldehyde	4.1 U	1.6 J	4.1 U	1.9 J	4.1 U
gamma-Chlordane	2.1 U	8 J	2.1 U	11 J	2.1 U
Metals (mg/Kg)					
Aluminum	5750	6570 J	5170	11200 J	3220
Antimony	0.325 J	1.9 J	0.42 UJ	2.1 J	0.68 J
Arsenic	8.95	56.4	3.6	105	7.6
Barium	34.2	50.6	25.2	81.2	14
Beryllium	0.14 U	0.47 J	0.11 U	0.91 J	0.067 U
Cadmium	.52	3.8	0.035 U	16.1	0.23
Calcium	1435	2610	1300	4600	739
Chromium	18.45	103 J	7.5	190 J	19.8
Cobalt	7.3	17 J	5.2	33 J	4
Copper	29.75	128	10.3	381	11.7
Iron	8975	16900 J	8290	26000 J	5200
Lead	365.5 J	225 J	5.7 J	449 J	15.7 J
Magnesium	2445	2150	2650	2510	1560
Manganese	116.5	206	92	390	70.4
Mercury	.063	0.37	0.021 U	1.1	0.031 U
Nickel	8.35	21.5 J	6.2	31 J	6.9
Potassium	550.5 J	640 J	862 J	784 J	390 J
Selenium	0.43 UJ	1.6 J	0.53 UJ	2 J	0.67 UJ
Silver	0.22 U	0.4 J	0.26 U	0.91 J	0.33 U
Sodium	37.4 U	197	45.7 U	382	57.7 U
Thallium	0.469995 J	0.53 UJ	0.82	0.48 UJ	0.78 U
Vanadium	16.5	32.2	15.3	46.1	9.7
Zinc	245.5	992 J	34.8	5170 J	93.9

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TABLE 2-112
SEDIMENT DATA HITS TABLE - STATION 02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-02-01-FW	SD-02-01-ME	SD-02-02-FW	SD-02-02-ME	SD-02-03-FW
AVS-SEM (mg/Kg)					
Arsenic	NA	3.745 U	NA	3.745 J	NA
Cadmium	.89	5.6 U	0.1 U	16.8 J	0.43 U
Lead	233	171.976 J	7.4	389.536 J	20.1
Mercury	0.004 U	10.03 U	0.003 U	10.03 U	0.02
Nickel	2.3 U	8.2166 J	26.6 U	28.7581 J	38.4 U
SEM/AVS Ratio	16.95	0.35	0.69	0.3	0.091
Sulfide	84.744 J	1113.87	19.902 J	4140.9	593.85 J
Zinc	293	738.08 J	25.8	2418.53 J	104
TOC/TCO (mg/Kg)					
Total Organic Carbon	6525	NA	9420	NA	2690
Total Combustible Organics	NA	125000 J	NA	160000 J	NA

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TABLE 2-113
SEDIMENT DATA HITS TABLE - STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-03-01-FW	SD-03-02-FW	SD-03-02-ME	SD-03-03-FW
VOCs (ug/Kg)				
2-Butanone	12 U	70	NA	12 U
Benzene	12 U	24 U	9 J	12 U
cis-1,2-Dichloroethene	NA	NA	28 J	NA
SVOCs (ug/Kg)				
2-Methylnaphthalene	390 U	800 U	16 J	400 U
Acenaphthene	390 U	800 U	45 J	400 U
Acenaphthylene	390 U	800 U	39 J	400 U
Anthracene	390 U	81 J	120	400 U
Benzo(a)anthracene	390 U	320 J	1300	400 U
Benzo(a)pyrene	390 U	420 J	1000	400 U
Benzo(b)fluoranthene	390 U	800 U	1400	400 U
Benzo(g,h,i)perylene	390 U	350 J	570	400 U
Benzo(k)fluoranthene	390 U	800 U	640	400 U
Chrysene	390 U	590 J	1300	400 U
Dibenz(a,h)anthracene	390 U	800 U	110	400 U
Fluoranthene	390 U	740 J	2600	400 U
Fluorene	390 U	800 U	150	400 U
Indeno(1,2,3-cd)pyrene	390 U	330 J	620	400 U
Naphthalene	390 U	800 U	18 J	400 U
Phenanthrene	390 U	370 J	1000	400 U
Pyrene	390 U	880 J	2600	400 U
PCB/Pesticides (ug/Kg)				
4,4'-DDD	3.9 U	21	94	4 U
4,4'-DDE	3.9 U	18 J	29	4 U
4,4'-DDT	3.9 U	8 U	5.8 J	4 U
alpha-Chlordane	2 U	5.2 J	11 J	2.1 U
Aroclor 1248	39 U	80 U	160 J	40 U
Aroclor 1260	39 U	80 U	110	40 U
delta-BHC	2 U	4.1 U	2.3 J	2.1 U
Endrin aldehyde	3.9 U	8.7 J	3.2 U	4 U
gamma-Chlordane	2 U	4.1 U	9.3 J	2.1 U
Metals (mg/Kg)				
Aluminum	3540	6050	6720 J	2730
Antimony	0.41 J	1.3 J	1.7 J	0.55 UJ
Arsenic	5.4	39.6	86.5	7.1
Barium	11.4	31.8	84.6	9
Beryllium	0.15 U	0.42	0.59 J	0.12 U
Cadmium	0.028 U	3.3	5.2	0.045 U
Calcium	1620	3900	4410	1380
Chromium	9.9	79.7	200 J	9.6
Cobalt	4	15.9	21.4 J	4.1
Copper	7.5	117	171	6.4
Iron	5370	12300	21900 J	4450
Lead	10.1	128	345 J	17.8
Magnesium	1720	1740	1790	1330
Manganese	69.1	294	503	70.6
Mercury	0.06 J	0.26 J	0.71	0.04 UJ
Nickel	5.4	12.1	26.7 J	4.9
Potassium	519 J	630 J	604 J	530 J
Selenium	0.43 U	2 U	4.2 J	0.68 U
Silver	0.21 U	0.54 U	0.69 J	0.38 UJ
Sodium	37 U	279	321	59.1 U
Vanadium	9.6	19.9	49.2	7.9
Zinc	90.6	1330	1420 J	60.4

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TABLE 2-113
SEDIMENT DATA HITS TABLE - STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-03-01-FW	SD-03-02-FW	SD-03-02-ME	SD-03-03-FW
AVS-SEM (mg/Kg)				
Cadmium	0.3 U	4.4	8.96 UJ	0.24 U
Lead	17.1	117	350.168 J	11.8
Mercury	0.02	0.01 U	10.03 U	0.003 U
Nickel	67.4 U	7.7 U	57.5162 J	7.2 U
SEM/AVS Ratio	0.40	0.38	0.32	0.61
Sulfide	117.486 J	2003.04 J	2824.8	55.854 J
Zinc	90.9	1500	1647.5 J	65.9
TOC/TCO (mg/Kg)				
Total Organic Carbon	1170	55000	NA	602
Total Combustible Organics	NA	NA	195000 J	NA

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TABLE 2-114
SEDIMENT DATA HITS TABLE - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-04-01-FW	SD-04-02-FW	SD-04-02-ME	SD-04-03-FW	SD-04-03-ME	SD-AO-01	SD-AO-02	SD-AO-03	SD-AO-03-TR
VOCs (ug/Kg)									
2-Butanone	15 UJ	23 UJ	NA	82 J	NA	NA	NA	NA	99 J
Acetone	64 U	48 U	NA	340 UJ	NA	NA	NA	NA	340 J
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	140 J
Toluene	15 UJ	23 UJ	NA	26 UJ	NA	NA	NA	NA	17 J
SVOCs (ug/Kg)									
2-Methylnaphthalene	510 U	750 U	41 J	870 UJ	70	NA	NA	NA	350 U
Acenaphthene	510 U	140 J	110 J	340 J	170 J	NA	NA	NA	350 U
Acenaphthylene	510 U	750 U	170	350 J	160	NA	NA	NA	350 U
Anthracene	180 J	560 J	420	960 J	640	NA	NA	NA	350 U
Benzo(a)anthracene	610 J	2000 J	3100	3900 J	3200	NA	NA	NA	240 J
Benzo(a)pyrene	600 J	2000 J	4100	4200 J	3500	NA	NA	NA	290 J
Benzo(b)fluoranthene	600 J	1800 J	5100	4800 J	6000	NA	NA	NA	520
Benzo(g,h,i)perylene	460 J	1200 J	1900	2300 J	2100	NA	NA	NA	350 U
Benzo(k)fluoranthene	490 J	1900 J	2100	3500 J	3800	NA	NA	NA	350 UJ
bis(2-Ethylhexyl)phthalate	510 U	750 U	NA	930 UJ	NA	NA	NA	NA	230 J
Carbazole	510 U	130 J	NA	400 J	NA	NA	NA	NA	350 U
Chrysene	750 J	2700 J	3700	5900 J	3800	NA	NA	NA	290 J
Dibenz(a,h)anthracene	150 J	490 J	720	1100 J	890	NA	NA	NA	350 U
Dibenzofuran	510 U	750 U	NA	170 J	NA	NA	NA	NA	350 U
Fluoranthene	1400 J	4200 J	8300	7100 J	8500	NA	NA	NA	540
Fluorene	510 U	180 J	290	470 J	490	NA	NA	NA	350 U
Indeno(1,2,3-cd)pyrene	380 J	1100 J	2600	2100 J	2500	NA	NA	NA	350 U
Naphthalene	510 U	750 U	56 J	160 J	96 J	NA	NA	NA	350 U
Phenanthrene	700 J	2100 J	3200	4600 J	3400	NA	NA	NA	200 J
Pyrene	1400 J	3800 J	6700	7000 J	6000	NA	NA	NA	500
PCB/Pesticides (ug/Kg)									
4,4'-DDD	25 U	37 U	160	140 J	37 J	NA	NA	NA	2.8 U
4,4'-DDE	25 U	37 U	91	56 J	20 J	NA	NA	NA	2.4 J
4,4'-DDT	25 U	37 U	21 J	R	4.4 J	NA	NA	NA	2.8 U
Aldrin	13 U	19 U	1.9 U	R	0.3 J	NA	NA	NA	1.4 U
alpha-Chlordane	13 U	19 U	21	R	29 J	NA	NA	NA	1.4 U
Aroclor 1248	250 U	370 U	200 J	R	44 J	NA	NA	NA	28 U
Aroclor 1260	250 U	370 U	94	R	160	NA	NA	NA	28 U
delta-BHC	13 U	19 U	1.9 U	R	1.3 J	NA	NA	NA	1.4 U
Dieldrin	25 U	37 U	3.9 U	R	0.73 J	NA	NA	NA	2.8 U
Endosulfan II	25 U	37 U	3.9 U	R	0.49	NA	NA	NA	2.8 U
Endosulfan sulfate	25 U	37 U	3.9 U	R	0.33 J	NA	NA	NA	2.8 U
Endrin	25 U	37 U	5 J	R	3.2 J	NA	NA	NA	2.8 U
Endrin aldehyde	25 U	37 U	11 J	R	4.9 J	NA	NA	NA	2.8 U
gamma-Chlordane	13 U	19 U	16 J	R	22 J	NA	NA	NA	1.4 U
Metals (mg/Kg)									
Aluminum	3190	5780	17700 J	12800	11500 J	19700	20550	20300	18400
Antimony	1 J	0.93 UJ	11.1 J	2.6 J	1.8 J	R	R	R	5.1
Arsenic	16.5	37.6	1570	58.7	98.6	113	118.5	132	128
Barium	11.6	18.6	77.3	89.8	175	179	187	184	189
Beryllium	0.2 U	0.4	1.7 J	0.71	0.86 J	1	1.1	1.1	1.1 J
Cadmium	0.8	6.1	19.1	4.1	7.4	9.7	11.45	10.9	10
Calcium	1560	1300	5900	3730	6310	7490	7570	7710	9840
Chromium	27	59.5	3000 J	148	240 J	338	364.5	353	317
Cobalt	6.8	11.3	42.7 J	22	21.6 J	25.1	26.6	28.8	26.6 J
Copper	54.8	204	1080	208	323	426	469	448	403
Cyanide	0.67 U	1.2 U	NA	1.6 U	NA	1.4	1.5	1.8	NA
Iron	7060	6650	86200 J	20400	31600 J	42600 J	44000 J	46200 J	43400
Lead	75.7	166	425 J	465	487 J	545	633	662	553
Magnesium	1200	1170	1400	3490	3470	6240	6495	6250	5830
Manganese	85.4	51.9	803	247	1010	979	855	1280	1210
Mercury	0.06 J	0.77 J	13.6	0.96 J	1.7	1.3 J	1.45 J	1.5 J	0.29 J
Nickel	5.8	6.4	41.2 J	17.9	33.6 J	41.4	45.6	45.8	36.4
Potassium	257 UJ	369 UJ	476 J	974 J	1120 J	1620	1695	1630	1840 J
Selenium	1.2 UJ	1.4 UJ	1.8 J	2.7 U	2 J	2.5	2.7 J	1.6 J	0.99 U
Silver	0.38 U	0.58 U	0.59 J	0.64 U	0.91 J	0.38 J	0.565 J	0.5 J	0.99 U
Sodium	103	837	330	213	347	617 J	703.5 J	672 J	732
Thallium	0.88 U	1.4 U	0.44 UJ	1.6	0.43 UJ	0.6 J	0.715 J	0.67 J	1.1 U
Vanadium	13.5	12.3	63.8	40.6	55.7	71.8 J	76.4 J	80.8 J	65.7
Zinc	415	1930	4330 J	1290	1590 J	1960	2285	2180	1860 J

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TABLE 2-114
SEDIMENT DATA HITS TABLE - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-04-01-FW	SD-04-02-FW	SD-04-02-ME	SD-04-03-FW	SD-04-03-ME	SD-AO-01	SD-AO-02	SD-AO-03	SD-AO-03-TR
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	6.741 J	NA	5.992 J	NA	NA	NA	NA
Cadmium	2.1	7.5	8.96 UJ	6	6.72 UJ	NA	NA	NA	6.3616
Copper	54.5 U	200 J	3.175 UJ	40.5 U	3.175 UJ	NA	NA	NA	209.191225
Lead	167	163	406.112 J	466	331.52 J	NA	NA	NA	347.8888
Mercury	0.01 U	0.01 U	10.03 U	0.01 U	10.03 U	NA	NA	NA	0.11033 J
Nickel	48 U	101 J	14.0856 J	99.3 J	19.9546 J	NA	NA	NA	16.7530605
SEM/AVS Ratio	0.3	0.32	0.99	0.55	0.91	NA	NA	NA	179.35
Sulfide	1206.96 J	4076.7 J	754.35	1383.51 J	600.27	NA	NA	NA	4.09275 J
Zinc	689	2310	1383.9 J	1290	995.09 J	NA	NA	NA	1049.137 J
Wet Parameters (mg/Kg)									
pH	NA	NA	NA	NA	NA	NA	6.23	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	-45	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	2840 J	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	21500	54400	193000 J	93400	255000 J	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	210000

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TABLE 2-114
SEDIMENT DATA HITS TABLE - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AO-04	SD-AO-05
VOCs (ug/Kg)		
2-Butanone	NA	NA
Acetone	NA	NA
Methyl Acetate	NA	NA
Toluene	NA	NA
SVOCs (ug/Kg)		
2-Methylnaphthalene	NA	NA
Acenaphthene	NA	NA
Acenaphthylene	NA	NA
Anthracene	NA	NA
Benzo(a)anthracene	NA	NA
Benzo(a)pyrene	NA	NA
Benzo(b)fluoranthene	NA	NA
Benzo(g,h,i)perylene	NA	NA
Benzo(k)fluoranthene	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA
Carbazole	NA	NA
Chrysene	NA	NA
Dibenz(a,h)anthracene	NA	NA
Dibenzofuran	NA	NA
Fluoranthene	NA	NA
Fluorene	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA
Naphthalene	NA	NA
Phenanthrene	NA	NA
Pyrene	NA	NA
PCB/Pesticides (ug/Kg)		
4,4'-DDD	NA	NA
4,4'-DDE	NA	NA
4,4'-DDT	NA	NA
Aldrin	NA	NA
alpha-Chlordane	NA	NA
Aroclor 1248	NA	NA
Aroclor 1260	NA	NA
delta-BHC	NA	NA
Dieldrin	NA	NA
Endosulfan II	NA	NA
Endosulfan sulfate	NA	NA
Endrin	NA	NA
Endrin aldehyde	NA	NA
gamma-Chlordane	NA	NA
Metals (mg/Kg)		
Aluminum	19800	21100
Antimony	R	R
Arsenic	129	156
Barium	187	215
Beryllium	1.1	1.2
Cadmium	10.2	12.1
Calcium	6960	9300
Chromium	347	366
Cobalt	25	35
Copper	439	512
Cyanide	0.92	0.52 J
Iron	45300 J	48400 J
Lead	564	641
Magnesium	6210	6260
Manganese	1280	2370
Mercury	1.4 J	1.4 J
Nickel	42	46.6
Potassium	1600	1600
Selenium	2.2	3.4 J
Silver	0.4 J	0.41 UJ
Sodium	633 J	647 J
Thallium	0.61 J	0.8 J
Vanadium	74.4 J	84.1 J
Zinc	2000	2580

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TABLE 2-114
SEDIMENT DATA HITS TABLE - STATION 04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AO-04	SD-AO-05
AVS-SEM (mg/Kg)		
Arsenic	NA	NA
Cadmium	NA	NA
Copper	NA	NA
Lead	NA	NA
Mercury	NA	NA
Nickel	NA	NA
SEM/AVS Ratio	NA	NA
Sulfide	NA	NA
Zinc	NA	NA
Wet Parameters (mg/Kg)		
pH	NA	NA
Redox Potential	NA	NA
Sulfide	NA	NA
TOC/TCO (mg/Kg)		
Total Combustible Organics	NA	NA
Total Organic Carbon	NA	NA

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TABLE 2-115
SEDIMENT DATA HITS TABLE - STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-05-01-FW	SD-05-02-FW	SD-05-03-FW	SD-05-03-ME
VOCs (ug/Kg)				
1,2-Dichloroethene(total)	12 UJ	12 UJ	9 J	NA
2-Butanone	12 UJ	12 UJ	39 J	NA
Benzene	12 UJ	12 UJ	20 UJ	6 J
cis-1,2-Dichloroethene	NA	NA	NA	7 J
Ethylbenzene	12 UJ	12 UJ	20 UJ	5 J
Naphthalene	NA	NA	NA	17 J
Trichloroethene	12 UJ	12 UJ	20 UJ	6 J
Xylene, m/p-	NA	NA	NA	10 J
SVOCs (ug/Kg)				
2-Methylnaphthalene	390 UJ	410 U	650 UJ	55.5 J
Acenaphthene	390 UJ	410 U	100 J	102 J
Acenaphthylene	390 UJ	410 U	250 J	36 J
Anthracene	390 UJ	410 U	520 J	245
Benzo(a)anthracene	150 J	130 J	2300 J	1015
Benzo(a)pyrene	170 J	130 J	2500 J	735
Benzo(b)fluoranthene	390 UJ	130 J	3000 J	735
Benzo(g,h,i)perylene	120 J	410 U	1200 J	305
Benzo(k)fluoranthene	390 UJ	120 J	1900 J	446.75 J
Carbazole	390 UJ	410 U	220 J	NA
Chrysene	220 J	160 J	2900 J	935
Dibenz(a,h)anthracene	390 UJ	410 U	650 UJ	112.5
Dibenzofuran	390 UJ	410 U	87 J	NA
Fluoranthene	340 J	260 J	4400 J	2250
Fluorene	390 UJ	410 U	230 J	225 J
Indeno(1,2,3-cd)pyrene	100 J	64 J	1200 J	355
Naphthalene	390 UJ	410 U	83 J	34.5 J
Phenanthrene	190 J	110 J	2200 J	1750 J
Pyrene	310 J	250 J	4100 J	2100
PCB/Pesticides (ug/Kg)				
4,4'-DDD	R	21 U	R	180
4,4'-DDE	R	21 U	R	35.5
4,4'-DDT	R	21 U	R	9.25 J
alpha-Chlordane	R	11 U	R	13.05 J
Aroclor 1248	R	210 U	R	120 J
Aroclor 1260	R	210 U	R	74.5
delta-BHC	R	11 U	R	3.65 J
Dieldrin	R	21 U	R	2.925 J
gamma-Chlordane	R	11 U	R	11.65 J
Metals (mg/Kg)				
Aluminum	4770	6470	4470	4580 J
Antimony	0.44 J	1 J	1.8 J	1.37 J
Arsenic	9.8	5.1	24.8	9.85
Barium	21.3	43.2	24.4	39.3
Beryllium	0.18	0.28	0.3	0.295 J
Cadmium	0.03 U	0.043 U	1.6	.62
Calcium	1440	1850	1480	1340
Chromium	17.1	15	149	68.45 J
Cobalt	5.5	7.4	16	5 J
Copper	21.7	10.9	80.3	43.15
Iron	14200	13400	7990	9060 J
Lead	103	39.3	145	655 J
Magnesium	2580	4440	1400	1845
Manganese	222	952	125	97.45
Mercury	0.04 UJ	0.05 UJ	1.2 J	.225
Nickel	10.7	8.6	6.8	11 J
Potassium	755 J	634 J	487 UJ	535.5 J
Silver	0.23 U	0.32 U	0.54 U	0.455 J
Sodium	39.5 U	55.9 U	216	94.15
Thallium	0.85	0.97	1.3 U	0.04 UJ
Vanadium	13.7	19.4	12.5	23.55
Zinc	118	111	571	135 J

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TABLE 2-115
SEDIMENT DATA HITS TABLE - STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-05-01-FW	SD-05-02-FW	SD-05-03-FW	SD-05-03-ME
AVS-SEM (mg/Kg)				
Cadmium	0.28 J	0.21 J	4.9	5.6 U
Copper	11.9 U	13.3 U	195	15.39875 J
Lead	36.3	20.8	334	202.02 J
Nickel	2.2 U	34.1 U	49.8 U	4.6952 J
SEM/AVS Ratio	5.5	3.6	0.56	0.215
Sulfide	7.704 J	12.519 J	1527.96 J	642
Zinc	74.6	84.8	1460	201.654 J
TOC/TCO (mg/Kg)				
Total Combustible Organics	3840	1840	56000	59100 J

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TABLE 2-116
SEDIMENT DATA HITS TABLE - STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-06-01-FW	SD-06-02-FW	SD-06-03-FW	SD-06-03-ME	SD-06-03-TR	SD-JP-01
VOCs (ug/Kg)						
2-Butanone	62	45	45	NA	R	NA
Benzene	22 U	20 U	29 U	17 J	R	NA
cis-1,2-Dichloroethene	NA	NA	NA	38 J	R	NA
Ethylbenzene	22 U	20 UJ	29 UJ	9 J	R	NA
Methyl Acetate	NA	NA	NA	NA	35 J	NA
Naphthalene	NA	NA	NA	70 J	NA	NA
Trichloroethene	22 U	20 U	29 U	52 J	R	NA
Xylene, m/p-	NA	NA	NA	25 J	R	NA
SVOCs (ug/Kg)						
2-Methylnaphthalene	730 U	650 U	2900 U	40 J	630 U	NA
Acenaphthene	730 U	650 U	2900 U	130 J	630 U	NA
Acenaphthylene	130 J	110 J	2900 U	120	630 U	NA
Anthracene	260 J	210 J	1300 J	550	64 J	NA
Benzo(a)anthracene	790	640 J	3000	4200 J	310 J	NA
Benzo(a)pyrene	980	800	2300 J	5100 J	370 J	NA
Benzo(b)fluoranthene	730 U	960	2400 J	6100 J	610 J	NA
Benzo(g,h,i)perylene	560 J	460 J	1700 J	1900 J	150 J	NA
Benzo(k)fluoranthene	730 U	690	2400 J	1300 J	160 J	NA
bis(2-Ethylhexyl)phthalate	2800 U	3000	3300 U	NA	430 J	NA
Carbazole	98 J	650 UJ	2900 UJ	NA	630 U	NA
Chrysene	1200	1100	3800	6900 J	450 J	NA
Dibenz(a,h)anthracene	730 U	650 U	2900 U	720 J	630 U	NA
Fluoranthene	1800	1600 J	11000	9900	780	NA
Fluorene	110 J	650 U	430 J	400	630 U	NA
Indeno(1,2,3-cd)pyrene	500 J	390 J	1400 J	2400 J	150 J	NA
Naphthalene	730 U	650 U	2900 U	53 J	630 U	NA
Phenanthrene	830	660 J	6300	5200	340 J	NA
Pyrene	1600	1100	6100	7500	600 J	NA
PCB/Pesticides (ug/Kg)						
4,4'-DDD	94 J	92 J	87 J	79	2.2	NA
4,4'-DDE	91 J	92 J	100 J	71	2.6	NA
4,4'-DDT	32 J	R	49 U	15 J	1.3 U	NA
alpha-Chlordane	31 J	32 J	27 J	80	0.63 U	NA
Aroclor 1248	370 U	R	490 U	120 J	13 U	NA
Aroclor 1260	370 U	R	490 U	82	13 U	NA
delta-BHC	19 U	R	25 U	25 J	0.63 U	NA
Dieldrin	37 U	R	49 U	5 J	1.3 U	NA
Endrin	37 U	R	49 U	17 J	1.3 U	NA
gamma-Chlordane	19 U	R	25 U	48 J	0.63 U	NA
Metals (mg/Kg)						
Aluminum	5560	4780	10300	14300	8800	15700
Antimony	1.8 J	1.2 J	2.8 J	2.5 J	2.7	2.7 J
Arsenic	25.1	21.8	58.1	135	67.3	135
Barium	30.2	28.9	66.7	130	82.6	124
Beryllium	0.32	0.28	0.58	1	0.6 J	0.88
Cadmium	1.7	1.5	4	7.7	5.5	9.8
Calcium	2080	1740	4020	5510	3600	5850 J
Chromium	196	172	442	403	197	423
Cobalt	9.3	6	13.7	20.9	13.7 J	20.8
Copper	101	83.9	198	389	219	435
Cyanide	1 U	2.2	1.5 U	NA	NA	3 J
Iron	10000	9930	19700	40600	20900	35300 J
Lead	193	361	394	455	354	436
Magnesium	1640	1610	2970	4260	2930	4840
Manganese	428	296	326	1630	628	763 J
Mercury	0.49 J	0.4 J	0.79 J	2.6	0.69 J	3.2
Nickel	13.8	10.7	21	32.2	19.5	35.5 J
Potassium	699 J	551 J	989 J	1380	837 J	1190
Selenium	1.4 UJ	0.92 UJ	2.1 U	3.4 J	0.99 U	1.6 J
Silver	0.51 U	0.39 UJ	0.57 UJ	0.18 J	0.99 U	0.44 UJ
Sodium	684	560	755	617 U	214	460
Thallium	1.2 U	0.89 U	1.2	0.77 U	1.1 U	0.92 J
Vanadium	24.5	25.9	47.6	60.2	29.9	56.3
Zinc	420	384	1080	1630	971 J	1920

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TABLE 2-116
SEDIMENT DATA HITS TABLE - STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-06-01-FW	SD-06-02-FW	SD-06-03-FW	SD-06-03-ME	SD-06-03-TR	SD-JP-01
AVS-SEM (mg/Kg)						
Arsenic	NA	NA	NA	12.733 J	NA	NA
Cadmium	3.1	2.9	5.3	6.72	4.8608	NA
Copper	158 J	166 J	148 J	5.08	155.2829	NA
Lead	248	455	417	319.088	268.65552	NA
Mercury	0.01 U	0.01 U	0.01 U	R	0.1003 J	NA
Nickel	120 J	96.1 J	98.8 J	22.8891 J	11.714524	NA
SEM/AVS Ratio	0.23	0.061	0.054	2.44	21.8	NA
Sulfide	2125.02 J	8602.8 J	13321.5 J	174.624	21.186 J	NA
Zinc	606	653	1070	738.08 J	680.2254 J	NA
Wet Parameters (mg/Kg)						
pH	NA	NA	NA	NA	NA	6.84
Redox Potential	NA	NA	NA	NA	NA	-56
Sulfide	NA	NA	NA	NA	NA	356 J
TOC/TCO (mg/Kg)						
Total Combustible Organics	46700	41600	69900	197000 J	NA	NA

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TABLE 2-117
SEDIMENT DATA HITS TABLE - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-01-FW	SD-07-02-FW	SD-07-02-ME	SD-07-03-FW	SD-07-04-FW	SD-07-05-FW	SD-07-05-ME	SD-07-06-FW	SD-07-07-FW
VOCs (ug/Kg)									
2-Butanone	10.25 J	24 U	NA	13 U	89	47 J	NA	26 U	28 U
cis-1,2-Dichloroethene	NA	NA	20 J	NA	NA	NA	18 J	NA	NA
Ethylbenzene	13 U	24 U	5 J	13 U	27 U	R	11 UJ	26 U	28 U
Trichloroethene	13 U	24 U	16 J	13 U	27 U	R	24 J	26 U	28 U
SVOCs (ug/Kg)									
2-Methylnaphthalene	430 U	1600 U	45 J	120 J	110 J	R	44 J	1700 U	920 U
Acenaphthene	430 U	200 J	220 J	320 J	240 J	340 J	170 J	270 J	110 J
Acenaphthylene	430 U	1600 U	140	67 J	320 J	R	130	210 J	920 U
Anthracene	131 J	450 J	740	550	470 J	950 J	880	890 J	270 J
Benzo(a)anthracene	415 J	2200	6000	1200	2800	6400 J	5200	5300	2400
Benzo(a)pyrene	490 J	2300	6000	800	3200 J	6300 J	5700	4600	2000
Benzo(b)fluoranthene	555	4400	8800 J	1400	5800 J	12000 J	7800 J	9400	4300
Benzo(g,h,i)perylene	325 J	2000	3300	270 J	890 UJ	2300 J	3400	1600 J	780 J
Benzo(k)fluoranthene	480 J	4800	4100 J	1600	5300 J	14000 J	1800 J	10000	4700
bis(2-Ethylhexyl)phthalate	790 U	6000 J	NA	390 J	6500 J	13000 J	NA	8300	3500
Butylbenzylphthalate	430 U	340 J	NA	420 U	280 J	620 J	NA	480 J	160 J
Carbazole	251 J	290 J	NA	90 J	290 J	580 J	NA	640 J	210 J
Chrysene	670 J	3000	6600	980	4400	9800 J	6000	6800	3000
Di-n-octylphthalate	430 U	1600 U	NA	420 U	890 UJ	430 J	NA	290 J	140 J
Dibenz(a,h)anthracene	430 U	400 J	1200 J	82 J	890 UJ	480 J	1400 J	330 J	160 J
Dibenzofuran	430 U	1600 U	NA	140 J	140 J	R	NA	190 J	920 U
Diethylphthalate	430 U	1600 U	NA	420 U	240 J	R	NA	1700 U	920 U
Fluoranthene	1250 J	4200	14000	2300	6200	15000 J	14000	12000	5300
Fluorene	430 U	360 J	640	430	330 J	530 J	500	390 J	160 J
Indeno(1,2,3-cd)pyrene	290 J	1700	4200	220 J	890 UJ	2600 J	4200	1800	900 J
Naphthalene	430 U	1600 U	61 J	52 J	86 J	NA	57 J	1700 U	920 U
Phenanthrene	400 J	2700	8500	1700	2700	4900 J	4800	5400	1300
Pyrene	840 J	7700	9500	1800	4500	12000 J	9800	9000 J	4100
PCB/Pesticides (ug/Kg)									
4,4'-DDD	21 U	42	47	23 J	64 J	48 J	39 J	34	18
4,4'-DDE	21 U	42	19 J	12 J	37 J	55 J	41	32	20
4,4'-DDT	21 U	32	21 J	3.8 J	24 J	41 J	18 J	11	15
Aldrin	11 U	4.1 U	1.6 U	0.5 J	4.8 J	R	1.6 U	5	2.8 J
alpha-BHC	11 U	2.7 J	1.6 U	2.2 U	0.45 J	2.5 J	1.6 U	4.4 U	0.31 J
alpha-Chlordane	9.25 J	39	49 J	27 J	43 J	45 J	64	32	19
Aroclor 1248	210 U	80 U	37 J	42 U	89 U	R	29 J	85 U	91 U
Aroclor 1260	210 U	80 U	95	42 U	89 U	R	74	85 U	91 U
beta-BHC	11 U	4.1 U	1.6 U	1.5 J	4.6 U	3.9 J	1.6 U	5.4	6.6
delta-BHC	11 U	4.2	1.6 U	4.5 J	4.6 U	1.8 J	24 J	0.33 J	8.8
Dieldrin	21 U	3.9 J	4.1 J	0.59 J	1.8 J	5.7 J	3.2 U	7 J	2 J
Endosulfan II	21 U	5.2 J	3.3 U	5.4 J	8.9 U	3.8 J	3.2 U	2.2 J	1.3 J
Endosulfan sulfate	21 U	8 UJ	3.3 U	4.2 UJ	3.9 J	2.1 J	3.2 U	8.5 UJ	9.1 UJ
Endrin	21 U	8 U	8.6 J	3.7 J	8.9 U	R	17 J	8.5 U	0.6 J
Endrin Aldehyde	21 U	5.8 J	27 J	0.98 J	8.9 U	R	3.2 U	1.9 J	0.94 J
Endrin ketone	21 U	2.3 J	3.3 U	4.2 U	8.9 U	R	3.2 U	8.5 U	9.1 U
gamma-BHC (Lindane)	11 U	1.4 J	1.6 U	2.2 U	4.6 UJ	R	1.6 U	1.4 J	4.7 U
gamma-Chlordane	11 U	21	41	21 J	53 J	36 J	38 J	26	14
Heptachlor	11 U	0.18 J	1.6 U	0.82 J	4.6 UJ	0.29 J	1.6 U	1.6 J	0.77 J
Heptachlor epoxide	11 U	3.3 J	1.6 U	2.4 J	4.6 U	3.7 J	1.6 U	1.9 J	1.6 J
Methoxychlor	110 U	6.3 J	16 U	22 U	46 UJ	R	16 U	8.8 J	47 U

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TABLE 2-117
SEDIMENT DATA HITS TABLE - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-01-FW	SD-07-02-FW	SD-07-02-ME	SD-07-03-FW	SD-07-04-FW	SD-07-05-FW	SD-07-05-ME	SD-07-06-FW	SD-07-07-FW
Metals (mg/Kg)									
Aluminum	5160	5670	13200	5610 J	10700	9880 J	14700	11100 J	5510 J
Antimony	0.935 J	2.1 J	2.6 J	0.72	1.2 J	2.3	2.8 J	2.6	1.9
Arsenic	18.35	34.6	111	10.3 J	75.5	61.5 J	98.3	84.1 J	27.1 J
Barium	21.35	42.9	110	21.8	87.3	73.4	118	83.1	32.4
Beryllium	.24	0.32 U	0.95	0.23	0.68999	0.56	1	0.66	0.3 U
Cadmium	.645	1.8	6.3	0.46 U	5	5.7 U	5.8	6.1 U	2 UJ
Calcium	1630	1910	5310	2370	4260	3950	6630	4420	2650
Chromium	67.7	116	291	31.9 J	207 J	164 J	277	209 J	79.5 J
Cobalt	7.7	6.7	19.2	6.1	16.4	13.4	21.5	15.6	8
Copper	49.4	115	306	23.4 J	209	162 J	304	204 J	69.7 J
Cyanide	0.57 U	1.3 U	NA	0.72 U	1.2 U	1.8	NA	1.4	1.1 U
Iron	9725	11500	33800	9490 J	22300	20900 J	35400	26800 J	11800 J
Lead	80.7	257	382	41.2	480	271	406	329	116
Magnesium	2540	1790	4180	2550 J	3690	3480 J	5330	3730 J	2500 J
Manganese	108.55	192	517	134 J	595 J	397 J	495	516 J	148 J
Mercury	0.28 J	2.2 J	2.3	0.11 UJ	0.93999 J	0.91 J	2	0.36 J	0.61 J
Nickel	14.55	12.2	35.2	8.2	28.3	22.2	37.5	26.9	13.8
Potassium	702 J	610 UJ	1310	574 J	1100	1210 J	1620	1180 J	862 J
Selenium	0.52 UJ	2 UJ	2.2 J	0.49 U	1.9	1.6 U	2.2 J	3.2 U	1.9 UJ
Silver	0.2 U	0.67 U	0.86 J	0.24 U	1.1	0.79 U	0.91 J	0.77 U	0.59 U
Sodium	30.85 J	115 U	416 U	52.2 UJ	342	257 U	519 U	342 U	193 U
Thallium	.815	1.6 U	0.81 U	0.98	1.5	2.8	0.44 U	3.5	1.6
Vanadium	17.2	23.2	56.7	19.5	44.8	39.1	62.6	46.2	21.4
Zinc	297.5	558	1500	106 J	1200	1070 J	1450	1310 J	455 J
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	14.231 J	NA	NA	NA	7.49 J	NA	NA
Cadmium	1.1	6 J	5.6 U	0.42 UJ	5.1	8 J	5.6	5	1.8 U
Copper	25.6 U	212	12.065	18	175 J	262	3.175 U	173	44.9
Lead	74.65	652	302.512	56.6	433 J	496	292.152	375	153
Nickel	5.6 U	38.7 J	27.5843 J	2.9 U	82.9 U	89.2 J	17.607 J	50.6 J	68.1 J
SEM/AVS Ratio	0.22	0.56	0.84	0.18	0.27	0.083	0.38	4.0	0.11
Sulfide	741.51 J	1630.68 J	654.84	391.62 J	2840.85	13482 J	1592.16	208.65 J	3020.61 J
Zinc	304	1400	995.09 J	111	1220 J	1740	1126.89 J	1330	520
TOC/TCO (mg/Kg)									
Total Combustible Organics	15150	93000	194000 J	13800	83600	88700	210000 J	70100	52700

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TABLE 2-117
SEDIMENT DATA HITS TABLE - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-08-FW	SD-07-09-FW	SD-07-10-FW	SD-07-10-ME
VOCs (ug/Kg)				
2-Butanone	16 U	28 U	26 U	NA
cis-1,2-Dichloroethene	NA	NA	NA	24 J
Ethylbenzene	16 U	28 U	26 U	13 UJ
Trichloroethene	16 U	28 U	26 U	35 J
SVOCs (ug/Kg)				
2-Methylnaphthalene	540 U	2700 U	130 J	59 J
Acenaphthene	540 U	390 J	130 J	230 J
Acenaphthylene	96 J	2700 U	480 J	140
Anthracene	170 J	1100 J	370 J	890
Benzo(a)anthracene	790	6700	2900	9600
Benzo(a)pyrene	890	5600	2700	10000
Benzo(b)fluoranthene	1900	11000	5200	16000 J
Benzo(g,h,i)perylene	580	1900 J	910	5300
Benzo(k)fluoranthene	1900	12000	5800	2300 J
bis(2-Ethylhexyl)phthalate	1200 J	7800	2100	NA
Butylbenzylphthalate	540 UJ	430 J	870 U	NA
Carbazole	83 J	680 J	270 J	NA
Chrysene	1100	8700	3900	10000
Di-n-octylphthalate	540 U	2700 U	870 U	NA
Dibenz(a,h)anthracene	120 J	440 J	180 J	2000
Dibenzofuran	540 U	2700 U	96 J	NA
Diethylphthalate	540 U	2700 U	870 U	NA
Fluoranthene	1000	15000	5600	23000
Fluorene	100 J	600 J	280 J	550
Indeno(1,2,3-cd)pyrene	500 J	1900 J	710 J	6900
Naphthalene	540 U	2700 U	130 J	72 J
Phenanthrene	800	6200	2400	12000
Pyrene	1700 J	11000	5100	15000
PCB/Pesticides (ug/Kg)				
4,4'-DDD	32	33	76	36
4,4'-DDE	19	31	69	33
4,4'-DDT	9.1	45	47	14 J
Aldrin	0.24 J	5.7	4.5 U	1.6 U
alpha-BHC	0.46 J	1.3 J	4.5 U	1.6 U
alpha-Chlordane	11	29	14	80
Aroclor 1248	54 U	92 U	87 U	67 J
Aroclor 1260	54 U	92 U	87 U	50
beta-BHC	4.1	5.6	2.5 J	1.6 U
delta-BHC	1.2 J	4.7 U	4.5 U	1.6 U
Dieldrin	0.94 J	2.5 J	8.7 U	3.2 U
Endosulfan II	2.2 J	8.4 J	8.7 UJ	3.2 U
Endosulfan sulfate	5.4 UJ	9.2 UJ	8.7 UJ	3.2 U
Endrin	5.4 U	1.6 J	4.2 J	16 J
Endrin Aldehyde	2.4 J	4.9 J	8.7 UJ	3.2 U
Endrin ketone	2.7 J	1.8 J	8.7 U	3.2 U
gamma-BHC (Lindane)	2.8 U	4.7 U	4.5 U	1.6 U
gamma-Chlordane	9.6	20	8.8	45 J
Heptachlor	2.8 UJ	4.7 UJ	0.26 J	1.6 U
Heptachlor epoxide	0.45 J	2.4 J	1 J	1.6 U
Methoxychlor	28 U	47 U	12 J	16 U

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TABLE 2-117
SEDIMENT DATA HITS TABLE - STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-08-FW	SD-07-09-FW	SD-07-10-FW	SD-07-10-ME
Metals (mg/Kg)				
Aluminum	10700 J	4890 J	22600 J	12500
Antimony	1.9	1.4	3.1	2.4 J
Arsenic	30 J	32.7 J	129 J	87.4
Barium	48.5	36.9	107	89.8
Beryllium	0.38	0.29 U	1.3	0.86
Cadmium	2.2 U	2.5 U	10.3	4.5
Calcium	2650	2220	6080	5840
Chromium	174 J	91.5 J	442 J	238
Cobalt	13.8	7.9	32.6	18.2
Copper	104 J	84.9 J	380 J	261
Cyanide	0.54 U	1.2 U	1.4 U	NA
Iron	19500 J	11000 J	27700 J	29100
Lead	167	144	474	326
Magnesium	5860 J	1620 J	4770 J	4420
Manganese	201 J	207 J	468 J	397
Mercury	0.99 J	0.77 J	5.7 J	1.6
Nickel	24.4	11.8	27.1	31.5
Potassium	1900 J	609 J	1240 J	1320
Selenium	0.7 UJ	0.99 U	2.1 U	2.4 J
Silver	0.34 U	0.49 U	0.52 U	0.78 J
Sodium	185 U	215 U	404 U	483 U
Thallium	2.1	1.5	3.8	0.76 U
Vanadium	37.8	22.1	79.2	54.6
Zinc	506 J	535 J	2490 J	1190
AVS-SEM (mg/Kg)				
Arsenic	NA	NA	NA	12.733 J
Cadmium	1.6 U	3.9 U	0.37 UJ	7.84
Copper	78.7	84.9	74.6	3.175 U
Lead	174	280	35.5	346.024
Nickel	12.7 J	16.8 J	156 J	14.6725 J
SEM/AVS Ratio	0.19	0.6	0.079	2.53
Sulfide	1653.15 J	930.9 J	2686.77 J	167.562
Zinc	482	944	171	738.08 J
TOC/TCO (mg/Kg)				
Total Combustible Organics	25500	82700	99000	218000 J

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TABLE 2-118
SEDIMENT DATA HITS TABLE - STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-08-01-FW	SD-08-02-FW	SD-08-03-FW
VOCs (ug/Kg)			
No Detections			
SVOCs (ug/Kg)			
Acenaphthylene	81 J	120 J	400 U
Anthracene	56 J	120 J	120 J
Benzo(a)anthracene	290 J	680	480
Benzo(a)pyrene	450	940	490
Benzo(b)fluoranthene	950	1900	1000
Benzo(g,h,i)perylene	280 J	700	260 J
Benzo(k)fluoranthene	960	2000	1100
bis(2-Ethylhexyl)phthalate	84 J	150 J	260 J
Carbazole	420 U	110 J	63 J
Chrysene	450	1000	580
Dibenz(a,h)anthracene	60 J	160 J	60 J
Dibenzofuran	420 U	56 J	400 U
Fluoranthene	520	1400	770
Fluorene	50 J	100 J	68 J
Indeno(1,2,3-cd)pyrene	280 J	680	240 J
N-nitrosodiphenylamine	58 J	490 U	400 U
Naphthalene	54 J	200 J	41 J
Phenanthrene	280 J	610	540
Pyrene	640 J	2000	810 J
PCB/Pesticides (ug/Kg)			
4,4'-DDD	9.8	6.7	3.3 J
4,4'-DDE	3.5 J	4.1 J	4.2 J
4,4'-DDT	3 J	0.87 J	R
alpha-BHC	2.1 U	0.26 J	R
alpha-Chlordane	2.1 U	2.5 U	1.5 J
delta-BHC	2.1 U	2.5 U	0.32 J
Dieldrin	4.1 U	0.19 J	R
Endosulfan II	0.29 J	1.1 J	R
Endrin	4.1 U	2.3 J	R
Endrin aldehyde	4.1 UJ	0.47 J	R
Endrin ketone	4.1 U	2.9 J	R
gamma-Chlordane	0.25 J	0.7 J	1.4 J
Heptachlor	2.1 UJ	0.13 J	R
Heptachlor epoxide	0.63 J	1.1 J	0.45 J
Metals (mg/Kg)			
Aluminum	4590 J	5950 J	5830 J
Antimony	0.75	1.6	0.74
Arsenic	10.8 J	28.9 J	16.5 J
Barium	15.7	21.2	19.8
Beryllium	0.19 U	0.32	0.25
Calcium	1630	2330	1910
Chromium	17.8 J	119 J	26.4 J
Cobalt	5.2	10.6	6.1
Copper	28.3 J	133 J	59.7 J
Iron	7110 J	23200 J	9400 J
Lead	20	70.7	38.8
Magnesium	1730 J	2110 J	2180 J
Manganese	99.5 J	228 J	155 J
Mercury	0.11 J	1 J	0.26 J
Nickel	7	20.2	9.4
Potassium	469 J	464 J	476 J
Thallium	1.5	1.7	1.1
Vanadium	11.6	17.5	15.6
Zinc	171 J	539 J	340 J

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TABLE 2-118
SEDIMENT DATA HITS TABLE - STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-08-01-FW	SD-08-02-FW	SD-08-03-FW
AVS-SEM (mg/Kg)			
Cadmium	3.8	0.79 U	1.6 U
Copper	128	62.9	117
Lead	294	48.2	65.9
Mercury	0.004 U	0.01	0.02
Nickel	14 J	6.2 J	36.9 J
SEM/AVS Ratio	3.5	3.1	2.4
Sulfide	158.574 J	92.769 J	145.734 J
Zinc	899	508	539
TOC/TCO (mg/Kg)			
Total Combustible Organics	117 U	17900	7560

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TABLE 2-119
SEDIMENT DATA HITS TABLE - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-01-FW	SD-09-02-FW	SD-09-03-FW	SD-09-04-FW	SD-09-05-FW	SD-09-06-FW	SD-09-07-FW	SD-09-08-FW	SD-09-09-FW
VOCs (ug/Kg)									
No Detections									
SVOCs (ug/Kg)									
2-Methylnaphthalene	520 U	520 U	410 U	410 U	390 UJ	220 J	470 U	390 U	390 U
Acenaphthene	520 U	520 U	410 U	410 U	390 UJ	520	470 U	390 U	390 U
Acenaphthylene	520 U	520 U	410 U	410 U	390 UJ	82 J	470 U	390 U	390 U
Anthracene	520 U	520 U	410 U	410 U	390 UJ	930	470 U	390 U	390 U
Benzo(a)anthracene	120 J	520 U	130 J	410 U	80 J	1000	130 J	40 J	100 J
Benzo(a)pyrene	68 J	520 U	100 J	410 U	70 J	1100	110 J	45 J	85 J
Benzo(b)fluoranthene	220 J	520 U	200 J	410 U	170 J	2300	270 J	76 J	160 J
Benzo(g,h,i)perylene	520 U	520 U	44 J	410 U	390 UJ	290 J	470 U	390 U	390 U
Benzo(k)fluoranthene	200 J	520 U	150 J	410 U	130 J	2100	260 J	69 J	140 J
bis(2-Ethylhexyl)phthalate	95 J	520 U	64 J	410 U	93 J	110 J	390 J	70 J	390 U
Carbazole	520 U	520 U	410 U	410 U	390 UJ	480	470 U	390 U	390 U
Chrysene	120 J	520 U	120 J	410 U	94 J	1400	120 J	48 J	100 J
Dibenz(a,h)anthracene	520 U	520 U	410 U	410 U	390 UJ	80 J	470 U	390 U	390 U
Dibenzofuran	520 U	520 U	410 U	410 U	390 UJ	500	470 U	390 U	390 U
Fluoranthene	250 J	42 J	210 J	410 U	220 J	1800	260 J	87 J	210 J
Fluorene	520 U	520 U	45 J	410 U	390 UJ	810	470 U	390 U	390 U
Indeno(1,2,3-cd)pyrene	520 U	520 U	62 J	410 U	390 UJ	370 J	470 U	21 J	47 J
Naphthalene	520 U	520 U	410 U	410 U	390 UJ	250 J	470 U	390 U	390 U
Phenanthrene	120 J	520 U	140 J	410 U	100 J	1900	140 J	64 J	69 J
Pyrene	230 J	52 J	210 J	410 U	160 J	2200	230 J	83 J	220 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	19	28	17	0.46 J	5.4	2.3 J	83	1.8 J	0.93 J
4,4'-DDE	14	27	9.8	0.089 J	1.6 J	1.1 J	19	3.9 U	0.3 J
4,4'-DDT	3.7 J	6.4	2.5 J	0.29 J	1.6 J	1.4 J	19	1.1 J	0.69 J
Aldrin	0.26 J	2 J	0.25 J	2.1 U	0.49 J	0.28 J	0.39 J	0.19 J	0.12 J
alpha-BHC	2.7 U	0.11 J	2.1 U	2.1 U	2 U	2.1 U	0.46 J	2 U	2 U
alpha-Chlordane	0.84 J	2.7 U	0.39 J	2.1 U	0.46 J	0.28 J	1.9 J	0.48 J	2 U
beta-BHC	0.29 J	2.7 U	0.1 J	2.1 U	2 U	0.23 J	0.92 J	0.17 J	2 U
delta-BHC	2.7 U	2.7 U	2.1 U	2.1 U	2 U	2.1 U	0.08 J	2 U	2 U
Dieldrin	4.3 J	7	2.6 J	0.41 J	0.4 J	1.8 J	6.2	1.1 J	0.59 J
Endosulfan I	2.7 U	0.11 J	2.1 U	2.1 U	2 U	2.1 U	0.51 J	2 U	2 U
Endosulfan II	5.2 U	5.2 U	4.1 U	4.1 U	0.34 J	0.24 J	4.7 U	3.9 U	3.9 U
Endrin	0.22 J	5.2 U	0.21 J	4.1 U	3.9 U	0.11 J	1.4 J	0.11 J	0.1 J
Endrin aldehyde	5.2 U	0.9 J	4.1 U	4.1 U	3.9 U	4 U	4.7 U	3.9 U	3.9 U
gamma-Chlordane	0.84 J	0.3 J	0.23 J	2.1 U	0.28 J	0.15 J	2.4	2 U	2 U
Heptachlor	0.31 J	0.067 J	2.1 UJ	2.1 UJ	0.34 J	0.27 J	0.25 J	2 UJ	2 UJ
Metals (mg/Kg)									
Aluminum	4020 J	3840 J	5470 J	2330 J	3670 J	4790 J	2760 J	7270 J	4870
Antimony	1	0.99	0.93999	0.57 U	0.64	0.74	0.9	1.3	0.51 U
Arsenic	36.6 J	48.5 J	22.2 J	18.1 J	19.7 J	27.7 J	26.4 J	26.3 J	26.8 J
Barium	15.2	25.5	19.5	6	13.7	15.1	8.8	14	18.3
Beryllium	0.22	0.26 U	0.24	0.081 U	0.14 U	0.2	0.23	0.22	0.14
Cadmium	1.5 U	0.81 U	0.76 UJ	0.67 U	0.5 UJ	0.78 UJ	0.9 U	1 UJ	0.19
Calcium	1420	2590	1430	569	848	1440	1110	1880	1610 J
Chromium	91.8 J	27.7 J	43.9 J	9.3 J	44.3 J	47 J	75.4 J	52.8 J	22.1 J
Cobalt	5.2	6	6.6	4.4	4.3	6.2	2.7	6	4.7
Copper	102 J	21 J	46.1 J	4.2 J	50.5 J	45.4 J	73.5 J	64.1 J	23.5
Iron	6360 J	8730 J	10200 J	4910 J	6950 J	11700 J	6030 J	13900 J	9810
Lead	86.8	14.1	24	2.4	16.7	23	37.2	32.4	21.9 J
Magnesium	1310 J	1450 J	2400 J	1080 J	1690 J	2170 J	922 J	4560 J	2420
Manganese	141 J	66.6 J	153 J	64.8 J	75.6 J	88 J	43.2 J	138 J	238 J
Mercury	0.19 J	0.21 J	0.37 J	0.06 UJ	0.53 J	0.28 J	0.68 J	0.24 J	0.049 U
Nickel	5.7	6.2	8.1	5.9	5.9	10.5	6.3	11.3	12.5
Potassium	506 J	509 J	814 J	300 J	507 J	672 J	236 J	553 J	532
Selenium	0.6 U	2.6 U	0.68 UJ	0.72 U	0.45 U	0.45 U	0.61 UJ	0.64 U	0.63 U
Thallium	1.1	1 U	1.2	0.84 U	0.68	0.83	0.52 U	1.4	0.74 U
Vanadium	9.3	11.3	16.3	6.5	9	11.9	7	19.3	10.1
Zinc	236 J	62.4 J	103 J	57.1 J	126 J	115 J	141 J	142 J	103 J

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TABLE 2-119
SEDIMENT DATA HITS TABLE - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-01-FW	SD-09-02-FW	SD-09-03-FW	SD-09-04-FW	SD-09-05-FW	SD-09-06-FW	SD-09-07-FW	SD-09-08-FW	SD-09-09-FW
AVS-SEM (mg/Kg)									
Cadmium	0.9 U	0.13 UJ	0.23 UJ	0.34 UJ	0.28 UJ	0.17 UJ	1.3 U	0.21 UJ	0.23 UJ
Copper	49.2	19.2	39.1	47.5	25.6	40.7	117	48.5	29.3
Lead	36.8	17.8	21.8	27.1	13.4	23.5	59.8	26.6	11.4
Mercury	0.01	0.004 U	0.003 U	0.003 U	0.01	0.01	0.02	0.003 U	0.03
Nickel	45.8 J	6.4 J	26.3 J	6 J	3.3 U	2.7 J	30.9 J	84.9 J	2.8 U
SEM/AVS Ratio	1.9	2.0	0.13	0.80	0.11	0.23	4.3	4.4	0
Sulfide	82.818 J	20.223 J	561.75 J	95.337 J	516.81 J	293.394 J	43.656 J	24.717 J	1.605 U
Zinc	212	49.9	71.1	90.7	82	84.8	205	69	72.4
TOC/TCO (mg/Kg)									
Total Organic Carbon	4230	46200	7320	121 U	114 U	1050	10900	117 U	NA
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	117 U

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TABLE 2-119
SEDIMENT DATA HITS TABLE - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-10-FW	
VOCs (ug/Kg)		
No Detections		
SVOCs (ug/Kg)		
2-Methylnaphthalene	440	U
Acenaphthene	440	U
Acenaphthylene	440	U
Anthracene	440	U
Benzo(a)anthracene	57	J
Benzo(a)pyrene	47	J
Benzo(b)fluoranthene	100	J
Benzo(g,h,i)perylene	440	U
Benzo(k)fluoranthene	100	J
bis(2-Ethylhexyl)phthalate	66	J
Carbazole	440	U
Chrysene	52	J
Dibenz(a,h)anthracene	440	U
Dibenzofuran	440	U
Fluoranthene	100	J
Fluorene	440	U
Indeno(1,2,3-cd)pyrene	440	U
Naphthalene	440	U
Phenanthrene	62	J
Pyrene	120	J
PCB/Pesticides (ug/Kg)		
4,4'-DDD	4.4	U
4,4'-DDE	1	J
4,4'-DDT	3.1	J
Aldrin	2.3	U
alpha-BHC	2.3	U
alpha-Chlordane	0.55	J
beta-BHC	2.3	U
delta-BHC	0.85	J
Dieldrin	0.83	J
Endosulfan I	2.3	U
Endosulfan II	4.4	U
Endrin	4.4	U
Endrin aldehyde	4.4	U
gamma-Chlordane	0.36	J
Heptachlor	2.3	U
Metals (mg/Kg)		
Aluminum	3450	
Antimony	1.1	
Arsenic	40.4	J
Barium	73.9	
Beryllium	0.14	
Cadmium	1.2	J
Calcium	1280	J
Chromium	32.1	J
Cobalt	13.3	
Copper	36.8	
Iron	30600	
Lead	43.6	J
Magnesium	1700	
Manganese	2640	J
Mercury	0.054	U
Nickel	7.7	
Potassium	428	
Selenium	0.62	
Thallium	2.4	
Vanadium	12.7	
Zinc	479	J

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TABLE 2-119
SEDIMENT DATA HITS TABLE - STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-10-FW
AVS-SEM (mg/Kg)	
Cadmium	0.36 J
Copper	53.4
Lead	55.7
Mercury	0.003 U
Nickel	120
SEM/AVS Ratio	91
Sulfide	2.568
Zinc	269
TOC/TCO (mg/Kg)	
Total Organic Carbon	NA
Total Combustible Organics	3860

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TABLE 2-120
SEDIMENT DATA HITS TABLE - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-10-01-FW	SD-10-01-ME	SD-10-02-FW	SD-10-02-ME	SD-10-02-TR	SD-10-03-FW
VOCs (ug/Kg)						
Benzene	R	42 UJ	R	21 J	35 U	20 U
Carbon Disulfide	R	NA	R	NA	29 J	20 U
cis-1,2-Dichloroethene	NA	64 J	NA	93 UJ	35 U	NA
Trichloroethene	R	104 UJ	R	60 J	35 U	20 U
SVOCs (ug/Kg)						
2-Methylnaphthalene	R	33 J	R	10 U	540 U	660 U
Acenaphthene	R	29 J	R	13	540 U	660 U
Acenaphthylene	R	20 J	R	13 J	540 U	660 U
Anthracene	R	96.5 J	R	49 J	540 U	660 U
Benzo(a)anthracene	R	580	R	210	540 U	660 U
Benzo(a)pyrene	R	620	R	250	540 U	660 U
Benzo(b)fluoranthene	350 J	965 J	550 J	290 J	540 U	660 U
Benzo(g,h,i)perylene	R	365	R	200	540 U	660 U
Benzo(k)fluoranthene	350 J	450 J	550 J	220 J	540 UJ	660 U
bis(2-Ethylhexyl)phthalate	610 J	NA	730 J	NA	540 U	120 J
Chrysene	R	650	R	380	540 U	660 U
Dibenz(a,h)anthracene	R	125	R	69	540 U	660 U
Fluoranthene	230 J	1950 J	410 J	570	540 U	85 J
Fluorene	R	115 J	R	72 J	540 U	660 U
Indeno(1,2,3-cd)pyrene	R	405	R	190	540 U	660 U
Naphthalene	NA	71 J	NA	26 J	540 U	660 U
N-nitrosodiphenylamine	560 J	NA	450 J	NA	540 U	400 J
Phenanthrene	R	690 J	R	210	540 U	660 U
Pyrene	355 J	1650 J	570 J	470	540 U	99 J
PCB/Pesticides (ug/Kg)						
4,4'-DDD	140 J	179 J	100 J	17	4.2 U	6.6 U
4,4'-DDE	125 J	160 J	29 J	5.1	4.2 U	0.85 J
4,4'-DDT	2.6 J	3.5 J	2.3 J	0.35 U	4.2 U	0.93 J
Aldrin	R	18 J	R	0.17 U	2.1 U	3.4 U
alpha-Chlordane	13.5 J	29.5 J	7.2 J	1.5 J	2.1 U	0.92 J
Aroclor 1248	R	560 J	R	47 J	42 U	66 U
Aroclor 1260	R	320 J	R	44	42 U	66 U
delta-BHC	R	1.7 U	R	0.17 U	2.1 U	0.14 J
Dieldrin	5.1 J	14 J	2.7 J	0.35 U	4.2 U	0.55 J
Endrin	R	5.8 J	R	0.61 J	4.2 U	6.6 U
Endrin aldehyde	R	11.7 J	R	1.7 J	4.2 U	6.6 U
gamma-Chlordane	18.5 J	20.5 J	7.4 J	0.25 J	2.1 U	0.43 J
Heptachlor epoxide	R	1.575 J	R	0.54 J	2.1 U	3.4 U
Metals (mg/Kg)						
Aluminum	24700 J	29250	29300 J	24400	28600	7690
Antimony	4.65 J	13.95 J	12.3 J	13.9 J	39.7	3.1
Arsenic	410 J	692.5	833 J	875	2180	187 J
Barium	71.55 J	112.6	41.4 J	53.4	102	32.4
Beryllium	1.6 J	2.05	1.7 J	1.7	1.7 J	0.48
Cadmium	21.15 J	18.7	8.6 J	12.4	13.9	5.9
Calcium	11250 J	9770	10100 J	8590	10400	5800 J
Chromium	1530 J	3435	670 J	934	1570	114 J
Cobalt	21.35 J	40.3	14.2 J	16.5	28.6 J	11.2
Copper	1650 J	2315	2080 J	1870	2030	298
Iron	31300 J	51650	27000 J	31900	46700	10800
Lead	484 J	881	646 J	559	837	130 J
Magnesium	1745 J	2270	1490 J	1500	1880	2140
Manganese	611 J	665	388 J	409	727	389 J
Mercury	6.75 J	19.9	11.7 J	24.2	0.19 J	0.54
Nickel	38.7 J	45.75	20 J	18.4	26.2	13.3
Potassium	546 J	737	361 J	345 U	533 J	256
Selenium	6.65 J	9.3 J	8.8 J	11.5	1.9 J	2.7
Silver	R	0.395 J	R	0.57 J	1 U	0.57 U
Sodium	889 J	589 J	738 J	642 U	1300	282
Vanadium	56.55 J	76.95	44.8 J	47.8	68.6	21.4
Zinc	2295 J	4020	1410 J	1570	2420 J	1430 J

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TABLE 2-120
SEDIMENT DATA HITS TABLE - STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-10-01-FW	SD-10-01-ME	SD-10-02-FW	SD-10-02-ME	SD-10-02-TR	SD-10-03-FW
AVS-SEM (mg/Kg)						
Arsenic	NA	88.382 J	NA	339.297 J	NA	NA
Cadmium	26.85 J	12.88	11.4 J	5.6 U	10.0688	8.3
Copper	573	3.96875 J	1150	38.735	938.1363	244
Lead	694	363.636 J	906	387.464 J	566.25688	139
Mercury	0.02 U	R	0.02 U	R	1.2036 J	0.01 U
Nickel	113 U	34.33365 J	193 U	13.4987 J	14.156028	109
SEM/AVS Ratio	0.345	0.415	0.6	2.38	7.1	1.9
Sulfide	6853.35	2072.055	2799.12	165.315	191.637 J	763.98
Zinc	3645	1617.845 J	1950	630.004 J	1616.3806 J	2570
TOC/TCO (mg/Kg)						
Total Combustible Organics	229500	465000 J	262000	463000 J	NA	97300
Total Organic Carbon	NA	NA	NA	NA	680000	NA

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TABLE 2-121
SEDIMENT DATA HITS TABLE - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-11-01-FW	SD-11-01-ME	SD-11-02-FW	SD-11-03-FW
VOCs (ug/Kg)				
2-Butanone	120 J	NA	200 J	28 UJ
cis-1,2-Dichloroethene	NA	170 J	NA	NA
trans-1,2-Dichloroethene	NA	387	NA	NA
Vinyl chloride	27 U	255 J	R	28 U
SVOCs (ug/Kg)				
2-Methylnaphthalene	890 U	16 J	R	910 U
Acenaphthene	890 U	8 J	R	910 U
Acenaphthylene	890 U	9 J	R	910 U
Anthracene	890 U	54 J	R	910 U
Benzo(a)anthracene	890 U	410	310 J	120 J
Benzo(a)pyrene	890 U	520	220 J	910 U
Benzo(b)fluoranthene	120 J	780	870 J	350 J
Benzo(g,h,i)perylene	890 U	300	260 J	910 U
Benzo(k)fluoranthene	110 J	720	840 J	330 J
bis(2-Ethylhexyl)phthalate	140 J	NA	8100 J	450 J
Chrysene	890 U	670	400 J	180 J
Dibenz(a,h)anthracene	890 U	99	R	910 U
Fluoranthene	890 U	1000	710 J	300 J
Fluorene	890 U	57 J	R	910 U
Indeno(1,2,3-cd)pyrene	890 U	360	270 J	910 U
Naphthalene	890 U	32 J	NA	910 U
N-nitrosodiphenylamine	410 J	NA	540 J	910 U
Phenanthrene	890 U	260	230 J	120 J
Pyrene	100 J	950	640 J	230 J
PCB/Pesticides (ug/Kg)				
4,4'-DDD	8.9 U	45 J	R	9.2 U
4,4'-DDE	2.7 J	15 J	8.3 J	0.76 J
4,4'-DDT	0.66 J	1.9 J	1.4 J	0.5 J
Aldrin	4.6 U	0.16 UJ	R	0.59 J
alpha-Chlordane	4.6 U	8.1 J	2.7 J	0.62 J
Aroclor 1248	89 U	180 J	R	92 U
Aroclor 1260	17 J	230	61 J	92 U
Dieldrin	8.9 U	1.4 J	R	9.2 U
Endosulfan I	4.6 U	0.44 J	R	4.7 U
Endosulfan II	8.9 U	0.51 J	R	9.2 U
Endosulfan Sulfate	8.9 U	0.72 J	R	9.2 U
Endrin	8.9 U	0.69 J	R	9.2 U
Endrin Aldehyde	8.9 U	1.7 J	R	9.2 U
gamma-Chlordane	0.34 J	5.6 J	2.7 J	0.51 J
Metals (mg/Kg)				
Aluminum	14800	12600 J	5090	10200
Antimony	8.4	1.5 UJ	1.2	2.7
Arsenic	874 J	121	268 J	473 J
Barium	30.5	149	24.6	62.9
Beryllium	1.1	0.97 J	0.38	0.52
Cadmium	8.7	9.5	3.4	3.3
Calcium	2680 J	5800	1870 J	5700 J
Chromium	791 J	303 J	900 J	317 J
Cobalt	14.5	25.3 J	8.1	19.8
Copper	619	402	283	172
Iron	49900	31700 J	23800	35800
Lead	175 J	606 J	118 J	100 J
Magnesium	844	2980	561	1590
Manganese	139 J	728	221 J	1630 J
Mercury	4.5	1.9	3.7	1.1
Nickel	11.2	32.8 J	9.3	13.9
Potassium	337	956 J	233	526
Selenium	4.4	2.5 J	3.1	2.4
Silver	0.63 U	0.92 J	0.63 U	0.85 U
Sodium	430	421	211	486
Vanadium	29.1	58.8	16.3	23.2
Zinc	2850 J	2260 J	830 J	1350 J

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TABLE 2-121
SEDIMENT DATA HITS TABLE - STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-11-01-FW	SD-11-01-ME	SD-11-02-FW	SD-11-03-FW
AVS-SEM (mg/Kg)				
Arsenic	NA	223.202 J	NA	NA
Cadmium	29.6	11.2 UJ	20.9 J	1.7
Copper	324	92.075 J	1270	74.8
Lead	150 J	267.288 J	660	59 J
Nickel	26.5 U	25.8236 J	68.9 U	10.8 U
SEM/AVS Ratio	1.9	1.34	0.13	0.99
Sulfide	3165.06	503.97	26964	468.66 J
Zinc	11800	1173.02 J	5800	849
TOC/TCO (mg/Kg)				
Total Combustible Organics	36700	387000 J	49900	121000

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TABLE 2-122
SEDIMENT DATA HITS TABLE - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-12-01-FW	SD-12-01-ME	SD-12-02-FW	SD-12-03-FW	SD-12-03-ME	SD-12-03-TR
VOCs (ug/Kg)						
2-Butanone	R	NA	87 J	22 U	NA	R
Acetone	R	NA	R	56 UJ	NA	370 J
Benzene	R	41 UJ	R	22 U	9 J	R
cis-1,2-Dichloroethene	NA	417 J	NA	NA	25 J	R
Trichloroethene	R	53 J	R	22 U	41 UJ	R
SVOCs (ug/Kg)						
2-Methylnaphthalene	R	13 J	R	730 U	25 J	390 U
Acenaphthene	R	10 J	R	730 U	15 J	390 U
Acenaphthylene	R	19 J	R	730 U	23 J	390 U
Anthracene	R	69 J	R	730 U	79	390 U
Benzo(a)anthracene	270 J	560 J	160 J	140 J	420	290 J
Benzo(a)pyrene	300 J	1000 J	160 J	160 J	440	520 J
Benzo(b)fluoranthene	790 J	1500 J	350 J	410 J	780 J	960
Benzo(g,h,i)perylene	R	640 J	R	730 U	290	280 J
Benzo(k)fluoranthene	800 J	720 J	350 J	390 J	440 J	360 J
bis(2-Ethylhexyl)phthalate	660 J	NA	350 J	500 J	NA	260 J
Chrysene	450 J	850 J	200 J	180 J	610	510
Dibenz(a,h)anthracene	R	320 J	R	730 U	150	390 U
Fluoranthene	800 J	1200 J	390 J	260 J	750	730
Fluorene	R	47 J	R	730 U	78 J	390 U
Indeno(1,2,3-cd)pyrene	160 J	740 J	R	79 J	330	260 J
Naphthalene	R	26 J	R	730 U	120 J	390 U
N-nitrosodiphenylamine	R	NA	R	100 J	NA	390 U
Phenanthrene	240 J	570 J	R	730 U	460	230 J
Pyrene	770 J	1000 J	420 J	220 J	650	670
PCB/Pesticides (ug/Kg)						
4,4'-DDD	R	17	R	2.4 J	1.9	3.1 U
4,4'-DDE	1.7 J	4	0.52 J	4.4 J	0.9 J	1.3 J
4,4'-DDT	0.53 J	1.3 J	R	7.3 U	1.1 J	3.1 U
Aldrin	R	0.17 U	R	0.51 J	0.16 U	1.6 U
alpha-Chlordane	1.6 J	2.4 J	R	1.8 J	1.1 J	1.6 U
Aroclor 1248	R	28 J	R	73 U	15 J	31 U
Aroclor 1260	R	58	R	73 U	18	31 U
beta-BHC	1.7 J	0.17 U	0.71 J	3.8 U	0.16 U	1.6 U
Dieldrin	1.3 J	0.78 J	0.42 J	1.5 J	0.32 U	3.1 U
Endosulfan I	R	0.17 U	R	0.62 J	0.16 U	1.6 U
Endosulfan II	0.69 J	0.33 U	R	7.3 U	0.32 U	3.1 U
Endrin	1.8 J	1.4 J	0.21 J	2.6 J	0.77 J	3.1 U
Endrin aldehyde	R	1.8 J	R	1 J	0.87 J	3.1 U
gamma-BHC (Lindane)	R	0.23 J	R	3.8 U	0.34 J	1.6 U
gamma-Chlordane	1.4 J	1.7 J	0.34 J	1.7 J	0.73 J	1.6 U
Heptachlor epoxide	R	0.46 J	R	3.8 U	0.27 J	1.6 U
Metals (mg/Kg)						
Aluminum	10300 J	26000	4560	6820	27500	16500
Antimony	R	68 J	0.95 UJ	22.4 J	117 J	19.2
Arsenic	101 J	3230	38.4	1540	4550	958
Barium	42 J	78.8	19.6	27.1	52.5	121
Beryllium	R	2	0.49 U	0.55	1.7	1.3 J
Cadmium	1.8 J	11.7	1.3	4.2 J	11.4	13.5
Calcium	5900 J	8920	3590	2230	7160	5340
Chromium	151 J	2120	42.1 J	522 J	726	1310
Cobalt	26.1 J	36.2	11	15.8	38.1	37.9 J
Copper	76.6 J	2080	40.5	398	1980	718
Iron	19000 J	90200	7530	53900	107000	94600
Lead	44.9 J	1240	16.8	192	1220	459
Magnesium	1550 J	1860	610	715	1480	3070
Manganese	385 J	776	195 J	249 J	586	1180
Mercury	0.74 J	27.5	0.15 J	4.6 J	44.8	0.17 U
Nickel	12.6 J	28.3	5.4	11.7	20.5	28.1
Potassium	344 J	795	160	267	450 U	837 J
Selenium	3.9 J	18.3	1.3	7.6	30.3	1 U
Silver	R	0.54 J	0.59 U	0.47 U	1.2 J	1.8
Sodium	436 J	708 U	200	141	493 U	793 J
Thallium	R	1.2 U	1.4 U	1.4	1.5 U	1.1 UJ
Vanadium	24.7 J	107	10.8	30.6	127	60.6 J
Zinc	2240 J	2640	1390	1370	4760	2680 J

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TABLE 2-122
SEDIMENT DATA HITS TABLE - STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-12-01-FW	SD-12-01-ME	SD-12-02-FW	SD-12-03-FW	SD-12-03-ME	SD-12-03-TR
AVS-SEM (mg/Kg)						
Arsenic	NA	254.66 J	NA	NA	223.951 J	NA
Cadmium	3.2	5.6 U	2.5	3.3	8.96	77.728
Copper	73.5 J	80.645	54.7 J	269 J	39.37	331.2795
Lead	53.3 J	319.088	33.1 J	185 J	675.472	238.13496
Mercury	0.01 U	R	0.01 U	0.01 U	R	0.16048 J
Nickel	78.3 U	15.2594 J	162 U	77.7 U	16.4332 J	12.9118
SEM/AVS Ratio	0.58	0.45	0.52	0.25	1.51	1.14
Sulfide	2654.67	1149.18	2320.83	2924.31	372.36	773.289
Zinc	3050 J	856.7 J	2410 J	1150 J	876.47 J	1439.42784
TOC/TCO (mg/Kg)						
Total Combustible Organics	173000	912000 J	105000	42200	431000 J	NA
Total Organic Carbon	NA	NA	NA	NA	NA	150000 J

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TABLE 2-123
SEDIMENT DATA HITS TABLE - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-13-01-FW	SD-13-01-ME	SD-13-01-TR	SD-13-02-FW	SD-13-03-FW	SD-13-03-ME
VOCs (ug/Kg)						
1,1,1-Trichloroethane	R	104 UJ	59 J	R	R	97 UJ
2-Butanone	190 J	NA	22 U	160 J	R	NA
Acetone	R	NA	4300 J	630 J	R	NA
Benzene	R	8 J	22 U	R	R	7 J
cis-1,2-Dichloroethene	NA	35 UJ	22 U	NA	NA	23 J
Ethylbenzene	R	9 J	22 UJ	R	R	13 UJ
Trichloroethene	R	35 UJ	22 U	R	R	37 J
SVOCs (ug/Kg)						
2-Methylnaphthalene	R	73	280 U	R	R	23 J
Acenaphthene	R	89 J	280 U	R	R	22 J
Acenaphthylene	R	31 J	280 U	R	R	26 J
Anthracene	R	300	280 U	R	R	99
Benzo(a)anthracene	680 J	1700	110 J	510 J	1200 J	750
Benzo(a)pyrene	710 J	1700	150 J	700 J	1300 J	890
Benzo(b)fluoranthene	1700 J	1900 J	270 J	1400 J	3600 J	1100 J
Benzo(g,h,i)perylene	370 J	820	280 U	260 J	340 J	540
Benzo(k)fluoranthene	1600 J	850 J	280 UJ	1300 J	3400 J	570 J
bis(2-Ethylhexyl)phthalate	1000 J	NA	140 J	1100 J	5100 J	NA
Butylbenzylphthalate	R	NA	280 U	R	230 J	NA
Carbazole	R	NA	280 U	R	170 J	NA
Chrysene	1000 J	1700	150 J	850 J	1300 J	1100
Dibenz(a,h)anthracene	330 J	220	280 U	R	R	180
Fluoranthene	1800 J	5200	230 J	1200 J	2400 J	2300
Fluorene	R	220	280 U	R	R	67 J
Indeno(1,2,3-cd)pyrene	760 J	1000	280 U	590 J	760 J	610
Naphthalene	R	67 J	280 U	R	R	40 J
Phenanthrene	650 J	2700	280 U	450 J	770 J	960
Pyrene	1300 J	4000	230 J	1000 J	1800 J	1700
PCB/Pesticides (ug/Kg)						
4,4'-DDD	2.3 J	18 J	4.4	8 J	12 J	310
4,4'-DDE	2.5 J	17 J	2.9	1.6 J	13 J	130
4,4'-DDT	0.45 J	4 J	2.2 U	1.2 J	2.9 J	12 J
Aldrin	0.47 J	0.16 UJ	1.1 U	1.4 J	1.6 J	1.6 U
alpha-BHC	0.32 J	0.16 UJ	1.1 U	0.91 J	1.7 J	1.6 U
alpha-Chlordane	3.2 J	17 J	1.1 U	8.8 J	27 J	93
Aroclor 1248	R	25 J	22 U	R	R	170 J
Aroclor 1254	R	3.1 U	45	R	R	3.3 U
Aroclor 1260	R	79	22 U	R	310 J	250
beta-BHC	1.5 J	0.16 UJ	1.1 U	2.1 J	3.1 J	1.6 U
delta-BHC	R	0.16 UJ	1.1 U	R	R	15 J
Dieldrin	2.2 J	1.4 J	2.2 U	4.3 J	R	11 J
Endosulfan II	R	0.39 J	2.2 U	4.7 J	R	3.3 U
Endosulfan sulfate	R	0.38 J	2.2 U	R	R	3.3 U
Endrin	0.2 J	9.6 J	2.2 U	0.28 J	R	3.3 U
Endrin aldehyde	R	2.2 J	2.2 U	2.6 J	10 J	7.5 J
gamma-Chlordane	1 J	16 J	1.1 U	3.3 J	18 J	650 J
Heptachlor epoxide	R	0.4 J	1.1 U	R	R	1.6 U

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TABLE 2-123
SEDIMENT DATA HITS TABLE - STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-13-01-FW	SD-13-01-ME	SD-13-01-TR	SD-13-02-FW	SD-13-03-FW	SD-13-03-ME
Metals (mg/Kg)						
Aluminum	30200 J	6430 J	17000	34400 J	27000 J	14800 J
Antimony	61 J	1.7 J	6.6	43.5 J	R	4.2 J
Arsenic	4210 J	15.9	353	2480 J	356 J	186
Barium	78.8 J	63.8	128	85.3 J	155 J	107
Beryllium	1.6 J	0.45 J	1.2 J	2 J	1.5 J	1.1 J
Cadmium	13.8 J	3.1	7.8	10.5 J	10.6 J	3.8
Calcium	12700 J	3020	6190	17000 J	5890 J	6950
Chromium	525 J	61.2 J	494	725 J	710 J	562 J
Cobalt	19 J	7.2 J	21.6 J	15.4 J	40.7 J	9.7 J
Copper	2340 J	113	474	2030 J	685 J	450
Iron	54700 J	12800 J	50900	54100 J	54600 J	20200 J
Lead	1270 J	340 J	756	911 J	1180 J	771 J
Magnesium	2310 J	1930	4440	1970 J	7610 J	2370
Manganese	921 J	123	607	1050 J	953 J	330
Mercury	19.5 J	0.25 J	0.48 J	7 J	3.3 J	14.3 J
Nickel	22.8 J	15.9 J	27.9	19 J	53.4 J	19.4 J
Potassium	640 J	715 J	1370 J	477 J	2030 J	741 J
Selenium	26.3 J	0.53 J	1 U	23 J	5.9 J	3.1 J
Silver	2 J	0.21 J	1 U	2 UJ	1.4 J	0.32 J
Sodium	1080 J	622	570	1270 J	710 J	798
Thallium	3.7 J	0.43 UJ	1.1 U	R	3.2 J	0.43 UJ
Vanadium	108 J	27.4	61	78.1 J	120 J	54
Zinc	2660 J	445 J	1420 J	2250 J	2670 J	641 J
AVS-SEM (mg/Kg)						
Arsenic	NA	3.745 U	NA	NA	NA	37.45 J
Cadmium	12.1 J	5.6 U	5.0512	2 J	2 J	5.6 U
Copper	2270 J	3.175 UJ	253.9873	567 J	341 J	37.465 J
Lead	1590 J	242.424 J	467.46392	746 J	911 J	578.088 J
Mercury	0.01 U	10.03 U	0.54162 J	0.02 U	0.55 J	10.03 U
Nickel	221 U	8.8035 J	14.208849	48.4 U	37.4 U	12.3249 J
SEM/AVS Ratio	0.79	1.48125	27.7	0.33	58	2.26
Sulfide	2821.59 J	154.08	21.828 J	2821.59 J	12.84 J	121.659
Zinc	1700 J	381.561 J	803.75292 J	1060 J	892 J	326.864 J
TOC/TCO (mg/Kg)						
Total Combustible Organics	234000	232000 J	NA	385000	229000	118000 J
Total Organic Carbon	NA	NA	300000	NA	NA	NA

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TABLE 2-124
SEDIMENT DATA HITS TABLE - STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-14-01-FW	SD-14-02-FW	SD-14-03-FW
VOCs (ug/Kg)			
Acetone	140 J	12 U	58 J
Toluene	12 U	12 U	3 J
SVOCs (ug/Kg)			
Anthracene	660 J	2100 UJ	2300 UJ
Benzo(a)anthracene	1100 J	700 J	1100 J
Benzo(a)pyrene	2100 UJ	2100 UJ	890 J
Benzo(b)fluoranthene	920 J	1300 J	2100 J
Benzo(k)fluoranthene	1100 J	2100 UJ	2300 UJ
bis(2-Ethylhexyl)phthalate	730 J	2100 UJ	1100 J
Chrysene	1200 J	910 J	1400 J
Fluoranthene	2400 J	2200 J	2800 J
Phenanthrene	2600 J	810 J	1100 J
Pyrene	1800 J	1200 J	2000 J
PCB/Pesticides (ug/Kg)			
4,4'-DDD	9.7 J	21 UJ	23 UJ
4,4'-DDE	8.2 J	21 UJ	23 UJ
alpha-Chlordane	4.1 J	3.3 J	5 J
Dieldrin	21 UJ	21 UJ	20 J
Endosulfan I	8 J	8.2 J	18 J
Endosulfan II	2.6 J	21 UJ	23 UJ
Metals (mg/Kg)			
Aluminum	4030	3830	3200
Antimony	0.99 J	0.89 J	0.85 J
Arsenic	49.1	61.1	73.4
Barium	15.9	13.4	18.4
Beryllium	0.21	0.19 U	0.2 U
Cadmium	0.4	0.53	1
Calcium	1760	1020	1320
Chromium	216	53.1 J	43 J
Cobalt	5	2.9	4.4
Copper	60.1	64.9	46
Iron	19400 J	9030	13600
Lead	130 J	34.5	40.5
Magnesium	1750	1270	1200
Manganese	141 J	84.9 J	172 J
Mercury	0.16 J	1.4 J	0.2 J
Nickel	10.4	5.4	6.2
Potassium	586	455	485
Selenium	0.73 J	0.61 U	0.61
Sodium	57.2	75.6	74.4
Thallium	0.81	0.71 U	0.61 U
Vanadium	13.3	8.9	12.2
Zinc	220	170	273
AVS-SEM (mg/Kg)			
Cadmium	0.82 J	0.51 J	0.88 J
Copper	36.1 J	99.3 J	37.5 J
Lead	57.5 J	38.1 J	47.6 J
Mercury	0.003 U	0.02 J	0.004 U
Nickel	46.3 U	94.5 J	4.9 U
SEM/AVS Ratio	0.18	2.8	2.9
Sulfide	770.4	73.83	211.86
Zinc	224 J	205 J	1190 J
TOC/TCO (mg/Kg)			
Total Combustible Organics	11000	4480	12300

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TABLE 2-125
SEDIMENT DATA HITS TABLE - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-15-01-FW	SD-15-01-ME	SD-15-02-FW	SD-15-03-FW
VOCs (ug/Kg)				
1,2-Dichloroethene(total)	29 J	NA	24 J	29 J
Acetone	210 J	NA	290 J	R
Carbon Disulfide	18 J	NA	R	R
cis-1,2-Dichloroethene	NA	187 J	NA	NA
Tetrachloroethene	R	190 UJ	R	41 J
Trichloroethene	R	206 J	26 J	48 J
SVOCs (ug/Kg)				
2-Methylnaphthalene	R	10 J	R	R
Acenaphthene	R	R	R	R
Acenaphthylene	R	7 J	R	R
Anthracene	R	50 J	R	R
Benzo(a)anthracene	R	200	R	R
Benzo(a)pyrene	R	180 J	R	R
Benzo(b)fluoranthene	R	440 J	R	R
Benzo(g,h,i)perylene	R	150 J	R	R
Benzo(k)fluoranthene	R	270 J	R	R
Chrysene	R	410	R	R
Dibenz(a,h)anthracene	R	60 J	R	R
Fluoranthene	R	990	R	R
Fluorene	R	69 J	R	R
Indeno(1,2,3-cd)pyrene	R	170 J	R	R
Naphthalene	NA	15 J	NA	NA
Phenanthrene	R	400	R	R
Pyrene	R	590	R	R
PCB/Pesticides (ug/Kg)				
4,4'-DDD	R	6.9 J	R	R
4,4'-DDE	R	3.8 J	R	R
4,4'-DDT	R	1.8 J	R	R
alpha-Chlordane	R	6 J	R	R
Aroclor 1248	R	43 J	R	R
Aroclor 1260	R	83	R	R
Dieldrin	R	0.57 J	R	R
Endosulfan I	8.9 J	0.45 J	6 J	15 J
Endrin	R	0.48 J	R	R
Endrin Aldehyde	R	2 J	R	R
gamma-Chlordane	R	0.98 J	R	R
Heptachlor epoxide	R	0.17 J	R	R
Metals (mg/Kg)				
Aluminum	4810 J	6100 J	6670 J	6260 J
Antimony	4 J	3.9 J	6 J	R
Arsenic	193 J	184	185 J	104 J
Barium	52.8 J	65.6	62.5 J	48.9 J
Beryllium	R	0.76 J	R	1.1 J
Cadmium	37.4 J	17.7	23.3 J	34.1 J
Calcium	15000 J	13400	15700 J	13200 J
Chromium	147 J	537 J	229 J	158 J
Cobalt	14.1 J	23.1 J	17.9 J	16.1 J
Copper	181 J	306	453 J	469 J
Iron	22200 J	16000 J	18500 J	11800 J
Lead	55.4 J	157 J	104 J	84.7 J
Magnesium	1280 J	1300	1650 J	1140 J
Manganese	1400 J	956	959 J	1130 J
Mercury	0.68 J	1.3 J	0.71 J	R
Nickel	9.6 J	18.9 J	17.5 J	20.5 J
Potassium	259 J	243 J	390 J	282 J
Selenium	R	1.2 UJ	8.6 J	6.5 J
Silver	R	0.29 J	R	R
Sodium	859 J	642	811 J	962 J
Thallium	R	2.4 J	R	R
Vanadium	14.2 J	22.4	22.9 J	19.3 J
Zinc	3350 J	2490 J	2660 J	1990 J

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TABLE 2-125
SEDIMENT DATA HITS TABLE - STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-15-01-FW	SD-15-01-ME	SD-15-02-FW	SD-15-03-FW
AVS-SEM (mg/Kg)				
Arsenic	NA	35.203 J	NA	NA
Cadmium	33.9 J	22.4 J	23.7 J	59.9 J
Copper	138 U	3.175 UJ	380 J	346 J
Lead	34 U	167.832 J	71.3 J	65.3 J
Nickel	32.1 U	30.5188 J	169 U	340 U
SEM/AVS Ratio	0.38	0.88	0.88	3
Sulfide	3434.7 J	1004.73	1351.41	471.87
Zinc	2670 J	1719.99 J	2000 J	2510 J
TOC/TCO (mg/Kg)				
Total Combustible Organics	432000	702000 J	381000	450000

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TABLE 2-126
SEDIMENT DATA HITS TABLE - STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-16-01-FW	SD-16-02-FW	SD-16-03-FW
VOCs (ug/Kg)			
No Detections			
SVOCs (ug/Kg)			
Benzo(b)fluoranthene	840 U	420 U	45 J
Benzo(k)fluoranthene	840 U	420 U	45 J
bis(2-Ethylhexyl)phthalate	840 U	73 J	420 U
Butylbenzylphthalate	130 J	420 U	420 U
Fluoranthene	88 J	420 U	50 J
Pyrene	110 J	420 U	61 J
PCB/Pesticides (ug/Kg)			
4,4'-DDD	11	13	4.2 U
4,4'-DDE	2.9 J	3.6 J	0.32 J
4,4'-DDT	1.8 J	6.8	0.32 J
alpha-Chlordane	0.67 J	0.45 J	4.2 U
delta-BHC	4.3 U	0.29 J	2.2 U
Dieldrin	1 J	0.49 J	0.32 J
gamma-Chlordane	0.72 J	0.47 J	0.12 J
Metals (mg/Kg)			
Aluminum	2800	3690	2480
Antimony	0.56 J	0.34 U	0.56 U
Arsenic	13.6	12.7 J	6.4 J
Barium	10.6	12.4	21.2
Beryllium	0.12 U	0.12	0.016 U
Cadmium	0.18	0.34	0.1
Calcium	772	1190 J	3680 J
Chromium	20.9 J	38.4 J	3.3 J
Cobalt	2.9	4	5.2
Copper	24.8	32.5	7.1
Iron	5110	6850	4860
Lead	10.1	15.4 J	1.9 J
Magnesium	1300	1870	931
Manganese	93.3 J	158 J	84 J
Mercury	0.37 J	0.13	0.046 U
Nickel	4.2	5.7	1.6
Potassium	299	519	515
Sodium	92	37.3 U	60.8 U
Vanadium	6.7	10.3	4.2
Zinc	78.5	155 J	36.4 J
AVS-SEM (mg/Kg)			
Cadmium	2.5	0.6	0.22 J
Copper	29.2 J	55.2	18.7 U
Lead	10.9 J	24.9	11.6
SEM/AVS Ratio	3.9	4.1	3.1
Sulfide	13.803	34.026	20.544
Zinc	74.9 J	222	128
TOC/TCO (mg/Kg)			
Total Combustible Organics	1390	125 U	3040

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TABLE 2-127
SEDIMENT DATA HITS TABLE - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-18-01-FW	SD-18-02-FW	SD-18-02-ME	SD-18-02-TR	SD-18-03-FW	SD-18-03-ME
VOCs (ug/Kg)						
1,1-Dichloroethane	3 J	R	178 U	R	R	229 U
1,2-Dichloroethene(total)	59	R	NA	NA	R	NA
2-Butanone	18 U	R	NA	R	65 J	NA
Acetone	150 UJ	310 J	NA	385 J	230 J	NA
cis-1,2-Dichloroethene	NA	NA	37 J	R	NA	76 UJ
Vinyl Chloride	2 J	R	178 U	R	R	229 U
SVOCs (ug/Kg)						
2-Methylnaphthalene	600 U	R	15 J	410 U	R	21 J
Acenaphthene	600 U	R	30 J	410 U	R	29 J
Acenaphthylene	600 U	R	16 J	410 U	R	23 J
Anthracene	600 U	R	150	410 U	R	130
Benzo(a)anthracene	600 U	R	1400	410 U	R	1400
Benzo(a)pyrene	600 U	R	1900	R	R	1900 J
Benzo(b)fluoranthene	600 U	R	2500 J	180 J	R	2400 J
Benzo(g,h,i)perylene	600 U	R	1400	410 U	R	1600 J
Benzo(k)fluoranthene	600 U	R	1200 J	410 J	R	920 J
bis(2-Ethylhexyl)phthalate	600 U	R	NA	410 U	R	NA
Chrysene	600 U	R	2200	410 U	R	2000
Dibenz(a,h)anthracene	600 U	R	430	410 U	R	410 J
Fluoranthene	600 U	R	4000	220 J	R	3100
Fluorene	600 U	R	110	410 U	R	94
Indeno(1,2,3-cd)pyrene	600 U	R	1400	410 U	R	1500 J
Naphthalene	600 U	NA	29 J	410 U	NA	34 J
N-nitrosodiphenylamine	600 U	R	NA	410 U	R	NA
Phenanthrene	600 U	R	1400	410 U	R	1200
Pyrene	600 U	R	3100	200 J	R	2600
PCB/Pesticides (ug/Kg)						
4,4'-DDD	6.1 U	R	23 J	3.2 U	5.1 J	4.9 J
4,4'-DDE	0.83 J	R	28	3.2 U	3.9 J	30
4,4'-DDT	6.1 U	R	1.2 J	3.2 U	R	1.7 J
alpha-Chlordane	6.1 U	R	7.7 J	1.6 U	R	17 J
Aroclor 1248	61 U	R	60 J	32 U	R	170 J
Aroclor 1260	61 U	R	90	32 U	R	190
Dieldrin	0.34 J	R	0.33 J	3.2 U	R	0.94 J
Endosulfan sulfate	6.1 U	R	0.33 U	3.2 U	R	0.41 J
Endrin	0.087 J	R	1.3 J	3.2 U	R	1.1 J
Endrin aldehyde	6.1 U	R	2.4 J	3.2 U	R	3.6 J
gamma-Chlordane	0.17 J	R	1.9 J	1.6 U	R	26 J
Metals (mg/Kg)						
Aluminum	3970	9650 J	20300	16200	11200 J	24100
Antimony	1.1 J	11 J	8.9 J	26.9	8.3 J	9.2 J
Arsenic	34.9	279 J	1180	1490	351 J	839
Barium	12.3	24.8 J	143	147	45.8 J	169
Beryllium	0.44 U	0.67 J	1.8	1.4 J	1.3 J	2.3
Cadmium	1.9	13.8 J	15.1	13	9.1 J	16
Calcium	2960	8900 J	7300	7850	12700 J	6860
Chromium	109 J	340 J	3890	2140	423 J	4340
Cobalt	3.5	14.2 J	44.3	37.8 J	16.7 J	54.9
Copper	158	1130 J	1010	854	787 J	1310
Iron	4460	12200 J	99600	120000	18500 J	85100
Lead	55.4	429 J	469	440	230 J	678
Magnesium	711	934 J	2780	2460	1150 J	2930
Manganese	93 J	270 J	1630	1740	472 J	1580
Mercury	0.68999 J	5.7 J	7.5	0.35	1.9 J	5.5
Nickel	4.6	13 J	42.5	24.3	16 J	46.7
Potassium	197	R	894	694 J	195 J	1050
Selenium	1.8	R	8 J	1 U	8.7 J	9 J
Silver	0.66 U	R	0.74 J	1 U	R	0.62 J
Sodium	290	929 J	648 U	592 J	1300 J	551 U
Vanadium	8.9	29.1 J	76	56 J	27.1 J	95.9
Zinc	420	1240 J	4020	2400 J	2040 J	3600

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TABLE 2-127
SEDIMENT DATA HITS TABLE - STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-18-01-FW	SD-18-02-FW	SD-18-02-ME	SD-18-02-TR	SD-18-03-FW	SD-18-03-ME
AVS-SEM (mg/Kg)						
Arsenic	NA	NA	256.907 J	NA	NA	224.7 J
Cadmium	2.3	10.9 J	12.32	7.7952	16.1 J	8.96
Copper	94.7 J	433 J	138.43	467.53145	225 J	260.985
Lead	56.3 J	388 J	352.24	277.04712	182 J	493.136
Mercury	0.01 U	0.02 U	R	1.9057 J	0.01 U	R
Nickel	95 U	115 U	27.5843 J	13.762805	76.9 U	35.8009 J
SEM/AVS Ratio	1.2	0.52	1.4	6.12	0.19	1.64
Sulfide	247.17	2009.46 J	548.91	153.438	6805.2 J	510.39
Zinc	469 J	1570 J	1285.05 J	1411.25352	2290 J	1245.51 J
TOC/TCO (mg/Kg)						
Total Combustible Organics	259000	361000 J	262000	423000 J	262000	423000 J

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TABLE 2-128
SEDIMENT DATA HITS TABLE - STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-19-01-FW	SD-19-01-ME	SD-19-01-TR	SD-19-02-FW	SD-19-03-FW
VOCs (ug/Kg)					
1,2-Dichloroethene(total)	16 J	NA	NA	18 J	R
2-Butanone	290 J	NA	R	160 J	R
Acetone	R	NA	310 J	R	R
cis-1,2-Dichloroethene	NA	82 J	R	NA	NA
Trichloroethene	R	42 J	R	R	R
SVOCs (ug/Kg)					
Acenaphthene	R	3 J	400 U	R	R
Acenaphthylene	R	1 J	400 U	R	R
Anthracene	R	18 J	400 U	R	R
Benzo(a)anthracene	245 J	130 J	400 U	R	200 J
Benzo(a)pyrene	295 J	160 J	210 J	R	270 J
Benzo(b)fluoranthene	935 J	290 J	410	R	700 J
Benzo(g,h,i)perylene	R	120 J	400 U	R	R
Benzo(k)fluoranthene	910 J	200 J	400 J	R	680 J
bis(2-Ethylhexyl)phthalate	570 J	NA	400 U	R	290 J
Chrysene	365 J	230 J	210 J	R	300 J
Dibenz(a,h)anthracene	R	46 J	400 U	R	R
Fluoranthene	510 J	410 J	280 J	R	420 J
Fluorene	R	14 J	400 U	R	R
Indeno(1,2,3-cd)pyrene	180 J	140 J	400 U	R	R
Naphthalene	NA	12 J	400 U	NA	NA
Phenanthrene	R	160 J	400 U	R	R
Pyrene	415 J	340 J	270 J	R	340 J
PCB/Pesticides (ug/Kg)					
4,4'-DDD	7.5 J	9	3.1 U	2.5 J	11 J
4,4'-DDE	11 J	3.2	1.6 J	4.5 J	20 J
4,4'-DDT	1.95 J	0.33 U	3.1 U	3.4 J	2.1 J
Aldrin	0.67 J	0.16 U	1.6 U	R	R
alpha-BHC	R	0.16 U	1.6 U	0.47 J	R
alpha-Chlordane	4.65 J	0.98 J	1.6 U	2.1 J	4.6 J
Aroclor 1248	R	35 J	31 U	R	R
Aroclor 1260	R	11	31 U	R	R
beta-BHC	2.35 J	0.16 U	1.6 U	2.2 J	R
Dieldrin	4.85 J	2.5 J	3.1 U	1.8 J	3.8 J
Endosulfan I	1.065 J	0.44 J	1.6 U	0.72 J	R
Endrin	5.05 J	0.92 J	3.1 U	1.4 J	3.5 J
Endrin aldehyde	1.6 J	0.33 U	3.1 U	R	2.4 J
gamma-Chlordane	4.8 J	0.59 J	1.6 U	2.7 J	4.6 J
Metals (mg/Kg)					
Aluminum	19750 J	10100	7060	6240 J	12800 J
Antimony	23.15 J	5.2 J	16.4	3.9 J	9.2 J
Arsenic	3790 J	182	4250	180 J	1850 J
Barium	123.1 J	66.5	205	40.1 J	55.4 J
Beryllium	1.7 J	2.9	0.68 J	R	1.3 J
Cadmium	12.85 J	7.4	8.3	11.3 J	18.9 J
Calcium	7445 J	11800	4120	13400 J	7760 J
Chromium	2335 J	226	866	93.7 J	1540 J
Cobalt	45.05 J	18.7	37.3 J	12.8 J	16.6 J
Copper	1330 J	557	354	98.6 J	841 J
Iron	163500 J	19800	258000	14400 J	89400 J
Lead	639 J	197	206	35.8 J	326 J
Magnesium	1945 J	1300	1280	850 J	1270 J
Manganese	1160 J	677	2020	412 J	679 J
Mercury	7.1 J	0.98	0.11 U	0.48 J	1.6 J
Nickel	33.55 J	14.6	0.8 U	11.1 J	20.3 J
Potassium	650.5 J	342 U	R	275 J	434 J
Selenium	13.05 J	5.6	1 U	2.5 J	9.1 J
Sodium	368 J	706 U	365 U	458 J	384 J
Vanadium	92.65 J	25.4	32.4 J	10.5 J	50.9 J
Zinc	2960 J	1080	1600 J	1690 J	2260 J

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TABLE 2-128
SEDIMENT DATA HITS TABLE - STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-19-01-FW	SD-19-01-ME	SD-19-01-TR	SD-19-02-FW	SD-19-03-FW
AVS-SEM (mg/Kg)					
Arsenic	NA	38.948 J	NA	NA	NA
Cadmium	9.55	5.6 U	7.3696	9.3	18.3
Copper	798.5 J	24.13	271.06245	797 J	1540 J
Lead	451 J	124.32	175.82992	457 J	548 J
Mercury	0.01 U	R	0.02006 J	0.01 U	0.05 J
Nickel	257.8 J	8.8035 J	0.804053	334 J	220 U
SEM/AVS Ratio	0.865	1.55	4.01	1.0	3.1
Sulfide	1887.48	220.848	180.723	1726.98	590.64
Zinc	1985 J	629.345 J	1190.4762	2210 J	1970 J
TOC/TCO (mg/Kg)					
Total Combustible Organics	323500	686000 J	NA	380000	363000
Total Organic Carbon	NA	NA	290000 J	NA	NA

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TABLE 2-129
SEDIMENT DATA HITS TABLE - STATION 20
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-20-01-FW	SD-20-01-ME	SD-20-02-FW	SD-20-03-FW
VOCs (ug/Kg)				
1,2-Dichloroethene(total)	15 J	NA	R	R
2-Butanone	107.5 J	NA	R	R
Acetone	590 J	NA	94 J	R
Carbon Disulfide	19 J	NA	R	R
cis-1,2-Dichloroethene	NA	562 J	NA	NA
Trichloroethene	R	2025 J	R	R
SVOCs (ug/Kg)				
2-Methylnaphthalene	R	13 J	R	R
Acenaphthene	R	6 J	R	R
Acenaphthylene	R	6 J	R	R
Anthracene	R	26 J	R	R
Benzo(a)anthracene	R	210	1100 J	1000 J
Benzo(a)pyrene	R	290 J	1200 J	730 J
Benzo(b)fluoranthene	915 J	330	3700 J	3700 J
Benzo(g,h,i)perylene	R	210 J	R	R
Benzo(k)fluoranthene	R	370	R	R
bis(2-Ethylhexyl)phthalate	2050 J	NA	5900 J	2500 J
Chrysene	R	400	1400 J	1500 J
Dibenz(a,h)anthracene	R	97 J	R	R
Fluoranthene	770 J	720	3000 J	2900 J
Fluorene	R	36 J	R	R
Indeno(1,2,3-cd)pyrene	R	210 J	830 J	R
Naphthalene	NA	14 J	NA	NA
Phenanthrene	R	240	890 J	650 J
Pyrene	R	540 J	2500 J	1400 J
PCB/Pesticides (ug/Kg)				
4,4'-DDD	14 J	8.4 J	32 J	26 J
4,4'-DDE	13 J	4.4	32 J	30 J
4,4'-DDT	R	4.6 J	R	R
alpha-Chlordane	14.5 J	12 J	42 J	49 J
Aroclor 1248	R	28 J	R	R
Aroclor 1260	R	79	R	R
Dieldrin	R	0.7 J	R	R
Endosulfan I	R	0.16 U	38 J	42 J
Endrin	R	0.97 J	R	R
Endrin aldehyde	R	1.3 J	R	R
gamma-Chlordane	11.9 J	6.8 J	R	R
Heptachlor epoxide	R	0.49 J	R	R
Metals (mg/Kg)				
Aluminum	18450 J	13500 J	26800 J	29700 J
Antimony	4.25 J	3.8 J	4 J	5.4 J
Arsenic	264.5 J	236	321 J	311 J
Barium	57.25 J	44.2	151 J	112 J
Beryllium	1.55 J	1.2 J	1.8 J	2 J
Cadmium	13.15 J	15.3	17.3 J	18.5 J
Calcium	13150 J	11100	9870 J	10100 J
Chromium	1450 J	1090 J	1860 J	1450 J
Cobalt	25.9 J	28.3 J	41.4 J	46.3 J
Copper	1075 J	1060	888 J	1030 J
Iron	24100 J	18500 J	43800 J	34900 J
Lead	449.5 J	450 J	980 J	1200 J
Magnesium	2300 J	1530	6030 J	6720 J
Manganese	901.5 J	711	793 J	511 J
Mercury	1 J	1.3 J	2.6 J	3.3 J
Nickel	34.05 J	27.5 J	51.2 J	57.7 J
Potassium	569 J	454 J	1680 J	2000 J
Selenium	11.1 J	3.3 J	6.9 J	7 J
Silver	R	0.29 J	1.6 J	R
Sodium	900 J	612	979 J	922 J
Thallium	R	0.44 UJ	R	4.4 J
Vanadium	49.8 J	38.2	106 J	115 J
Zinc	1670 J	2380 J	3470 J	3380 J

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TABLE 2-129
SEDIMENT DATA HITS TABLE - STATION 20
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-20-01-FW	SD-20-01-ME	SD-20-02-FW	SD-20-03-FW
AVS-SEM (mg/Kg)				
Arsenic	NA	83.888 J	NA	NA
Cadmium	16.6 J	10.08 J	14.8 J	13.2
Copper	550.5 J	81.915 J	594 J	619 J
Lead	383 J	296.296 J	733 J	796
Mercury	0.02 U	10.03 U	0.01 U	0.04
Nickel	137 U	42.2568 J	202 U	41.4 U
SEM/AVS Ratio	1.4	1.36	2.1	38
Sulfide	820.155 J	568.17	850.65 J	41.73
Zinc	1600 J	1357.54 J	2830 J	2340
TOC/TCO (mg/Kg)				
Total Combustible Organics	362000	441000 J	234000	247000

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TABLE 2-130
SEDIMENT DATA HITS TABLE - STATION 21
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-21-01-FW	SD-21-01-ME	SD-21-02-FW	SD-21-03-FW
VOCs (ug/Kg)				
Benzene	R	22 J	R	R
Naphthalene	NA	208.25 J	NA	NA
Trichloroethene	R	19 J	R	R
SVOCs (ug/Kg)				
2-Methylnaphthalene	R	140	R	R
Acenaphthene	R	67 J	R	R
Acenaphthylene	R	38 J	R	R
Anthracene	R	420	R	R
Benzo(a)anthracene	R	390	R	R
Benzo(a)pyrene	R	890 J	R	R
Benzo(b)fluoranthene	3100 J	980	740 J	R
Benzo(g,h,i)perylene	R	710 J	R	R
bis(2-Ethylhexyl)phthalate	3100 J	NA	990 J	3100 J
Chrysene	R	940	R	R
Dibenz(a,h)anthracene	R	240 J	R	R
Fluoranthene	2500 J	1400	970 J	R
Fluorene	R	240	R	R
Indeno(1,2,3-cd)pyrene	R	620 J	R	R
Naphthalene	NA	1300 J	2500 J	NA
Phenanthrene	R	600	R	R
Pyrene	2400 J	1300	620 J	R
PCB/Pesticides (ug/Kg)				
4,4'-DDD	28 J	35 J	R	27 J
4,4'-DDE	36 J	22	R	35 J
4,4'-DDT	R	4.4 J	R	R
alpha-Chlordane	60 J	29	R	62 J
Aroclor 1248	R	240 J	R	R
Aroclor 1260	R	420	R	R
delta-BHC	R	1.8 J	R	R
Endosulfan I	68 J	1.6 U	14 J	59 J
Endosulfan II	R	5.2	R	R
Endrin	16 J	3.6 J	R	R
Endrin aldehyde	R	9 J	R	R
gamma-Chlordane	R	19 J	R	47 J
Metals (mg/Kg)				
Aluminum	18400 J	11300 J	8890 J	16000 J
Antimony	R	2 J	R	R
Arsenic	187 J	258	121 J	135 J
Barium	150 J	181	55.3 J	124 J
Beryllium	1.1 J	0.93 J	0.68 J	0.89 J
Cadmium	17.3 J	14.1	20.5 J	18.8 J
Calcium	7640 J	8290	4920 J	4990 J
Chromium	2200 J	5590 J	489 J	1320 J
Cobalt	29.9 J	26.9 J	12.8 J	22.9 J
Copper	481 J	613	324 J	410 J
Iron	28000 J	20800 J	11300 J	27700 J
Lead	722 J	546 J	187 J	652 J
Magnesium	4710 J	2170	1250 J	4330 J
Manganese	247 J	268	101 J	215 J
Mercury	17.5 J	0.15	2.3 J	18.2 J
Nickel	46.8 J	29.8 J	17.9 J	36.3 J
Potassium	1330 J	531 J	245 J	1050 J
Selenium	3.5 J	3.2 J	R	3 J
Silver	R	0.3 J	R	R
Sodium	1240 J	796	1010 J	978 J
Vanadium	77.3 J	46.2	26.6 J	64.4 J
Zinc	3830 J	4940 J	2350 J	3130 J

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TABLE 2-130
SEDIMENT DATA HITS TABLE - STATION 21
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-21-01-FW	SD-21-01-ME	SD-21-02-FW	SD-21-03-FW
AVS-SEM (mg/Kg)				
Arsenic	NA	14.231 J	NA	NA
Cadmium	13.9 J	10.08 UJ	14.7 J	8.8 J
Copper	348 J	3.175 UJ	318 J	226 J
Lead	548 J	348.096 J	276 J	421 J
Mercury	0.18 J	10.03 U	0.08 J	0.08 J
Nickel	34.9 U	9.9773 J	22.6 U	21.4 U
SEM/AVS Ratio	11	0.99	4.1	18
Sulfide	170.13 J	898.8	481.5 J	57.78 J
Zinc	3150 J	1693.63 J	3620 J	1760 J
TOC/TCO (mg/Kg)				
Total Organic Carbon	288000	NA	441000	244000
Total Combustible Organics	NA	344000 J	NA	NA

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TABLE 2-131
SEDIMENT DATA HITS TABLE - STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-22-01-FW	SD-22-01-TR	SD-22-02-FW	SD-22-02-ME	SD-22-03-FW	SD-TT-22-01	SD-TT-22-02	SD-TT-22-03
VOCs (ug/Kg)								
Acetone	R	2400 J	26 U	NA	R	NA	NA	NA
cis-1,2-Dichloroethene	NA	R	NA	73 J	NA	NA	NA	NA
Methylene Chloride	R	150 U	28 J	205 U	100 J	NA	NA	NA
Tetrachloroethene	410 J	R	120	3164	830 J	NA	NA	NA
Trichloroethene	21 J	R	26 U	803	200 J	NA	NA	NA
SVOCs (ug/Kg)								
2-Methylnaphthalene	R	540 U	870 U	13 J	R	NA	NA	NA
Acenaphthene	R	540 U	870 U	11 J	R	NA	NA	NA
Acenaphthylene	R	540 U	870 U	12 J	R	NA	NA	NA
Anthracene	R	540 U	870 U	46 J	R	NA	NA	NA
Benzo(a)anthracene	R	540 U	870 U	300	R	NA	NA	NA
Benzo(a)pyrene	R	R	870 U	200	R	NA	NA	NA
Benzo(b)fluoranthene	430 J	540 U	870 U	440	R	NA	NA	NA
Benzo(g,h,i)perylene	R	540 U	870 U	190	R	NA	NA	NA
Benzo(k)fluoranthene	R	540 J	870 U	290	R	NA	NA	NA
Chrysene	R	540 U	870 U	400	R	NA	NA	NA
Dibenz(a,h)anthracene	R	540 U	870 U	44 J	R	NA	NA	NA
Fluoranthene	530 J	540 U	260 J	840	R	NA	NA	NA
Fluorene	R	540 U	870 U	26 J	R	NA	NA	NA
Indeno(1,2,3-cd)pyrene	R	540 U	870 U	220	R	NA	NA	NA
Naphthalene	NA	540 U	870 U	25 J	NA	NA	NA	NA
Phenanthrene	R	540 U	870 U	490	R	NA	NA	NA
Pyrene	R	540 U	870 U	610	R	NA	NA	NA
PCB/Pesticides (ug/Kg)								
4,4'-DDD	R	4.5 U	8.7 UJ	9.6 J	R	NA	NA	NA
4,4'-DDE	30 J	4.5 U	8.3 J	31	R	NA	NA	NA
4,4'-DDT	R	4.5 U	8.7 UJ	2.7 J	R	NA	NA	NA
alpha-Chlordane	R	2.3 U	4.5 UJ	1.2 J	R	NA	NA	NA
Aroclor 1248	R	45 U	87 UJ	8.1 J	R	NA	NA	NA
Aroclor 1260	R	45 U	87 UJ	29	R	NA	NA	NA
delta-BHC	R	2.3 U	4.5 UJ	0.16 J	R	NA	NA	NA
Dieldrin	R	4.5 U	8.7 UJ	0.38 J	R	NA	NA	NA
Endosulfan I	4.3 J	2.3 U	2.5 J	0.18 J	4.4 J	NA	NA	NA
Endosulfan II	R	4.5 U	8.7 UJ	0.48 J	R	NA	NA	NA
Endrin aldehyde	R	4.5 U	8.7 UJ	3.3 J	R	NA	NA	NA
gamma-Chlordane	R	2.3 U	4.5 UJ	0.19 J	R	NA	NA	NA
Heptachlor epoxide	4.9 J	2.3 U	2.3 J	0.29 J	R	NA	NA	NA
Metals (mg/Kg)								
Aluminum	6030 J	3010	3560	2700 J	3520 J	2560	3110	13200
Antimony	R	38.2	2.1 U	8 J	R	329 J	42 J	0.94 J
Arsenic	R	12.6	3.7 U	6.6	R	87.3 J	5.2 J	13.9 J
Barium	50 J	48.1	29.8	32.9	51.4 J	49.1	20.3	49.7
Beryllium	1.1 J	0.31 J	0.48	0.48 J	0.4 J	0.24	0.2	0.7
Cadmium	0.62 J	1	0.2	0.61	R	1.5 J	1.7 J	1.5 J
Calcium	20000 J	19300	13600	19600	30500 J	17500	4480	7570
Chromium	35.3 J	10.6	12	11.7 J	10.7 J	7.1 J	85.3 J	27.1 J
Cobalt	3.2 J	2.5	1.4	2.7 J	2 J	2.4	1.3	7
Copper	22.1 J	29.5	12.2	26	17.1 J	29.6 J	9.6 J	37.5 J
Iron	4700 J	3310	2310 J	2710 J	3430 J	2970	2630	11900
Lead	601 J	3880	967 J	3970 J	383 J	41000 J	2840 J	481 J
Magnesium	1390 J	1510	861	1370	1790 J	1270	735	4460
Manganese	100 J	51.8	34.4 J	36.7	74.1 J	39.8 J	34.8 J	194 J
Mercury	R	0.03 U	0.1 UJ	0.5	R	0.14 J	0.05 J	0.15
Nickel	8 J	7.4	4.4	9.2 J	6.3 J	4.8	3.9	18
Potassium	467 J	303 J	388	260 J	287 J	200	134 J	1360
Selenium	7.5 J	1.9 J	2.3	8.1 J	5.9 J	2 U	1 U	2.3 J
Silver	R	1 U	0.87	0.22 J	R	3.3 J	R	R
Sodium	567 J	1320	204	546	420 J	700 J	827 J	992 J
Vanadium	35.3 J	41.6	12.6	38.8	29.4 J	32.4	8.5	50.1
Zinc	59.8 J	111 J	23	34.2 J	34.5 J	66.2 J	106 J	122 J

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TABLE 2-131
SEDIMENT DATA HITS TABLE - STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-22-01-FW	SD-22-01-TR	SD-22-02-FW	SD-22-02-ME	SD-22-03-FW	SD-TT-22-01	SD-TT-22-02	SD-TT-22-03
AVS-SEM (mg/Kg)								
Cadmium	0.56 J	0.5936 J	0.23 J	5.6 U	0.37 U	NA	NA	NA
Copper	17.1 U	12.1158	41.7 J	33.655 J	44.2 U	NA	NA	NA
Lead	525 J	1621.58864	998 J	4226.88 J	258 J	NA	NA	NA
Mercury	0.01 U	0.44132 J	0.01 U	10.03 U	0.01 U	NA	NA	NA
Nickel	19.9 U	5.446432	147 J	20.5415 J	73.2 U	NA	NA	NA
SEM/AVS Ratio	0.64	4.82	2.8	467.6	1.3	NA	NA	NA
Sulfide	173.34 J	9.309	96.3 J	1.605 U	44.94 J	NA	NA	NA
Zinc	61.7 J	72.54168	24.1 J	138.39 J	36.2 J	NA	NA	NA
TOC/TCO (mg/Kg)								
Total Combustible Organics	NA	NA	NA	693000 J	NA	NA	NA	NA
Total Organic Carbon	371000	430000 J	198000	NA	514000	NA	NA	NA
Wet Parameters								
pH	NA	NA	NA	NA	NA	NA	NA	5.95
Redox Potential	NA	NA	NA	NA	NA	NA	NA	324
Sulfide	NA	NA	NA	NA	NA	NA	NA	52.3 J

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TABLE 2-132
SEDIMENT DATA HITS TABLE - STATION AM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AM-01
Metals (mg/Kg)	
Aluminum	7500
Antimony	2 J
Arsenic	121
Barium	58.4
Beryllium	0.64
Cadmium	3.9
Calcium	3480 J
Chromium	322
Cobalt	20.3
Copper	197
Cyanide	0.85 J
Iron	23400 J
Lead	150
Magnesium	2010
Manganese	1140 J
Mercury	1.9
Nickel	18 J
Potassium	497
Selenium	1.1 J
Sodium	231 J
Thallium	0.44 J
Vanadium	26.9
Zinc	941

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TABLE 2-133
SEDIMENT DATA HITS TABLE - STATION AS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AS-01	SD-AS-02
Metals (mg/Kg)		
Aluminum	15700	18800
Antimony	2.15 J	2.9 J
Arsenic	111	121
Barium	95.85	109
Beryllium	0.895	1.1
Cadmium	10.6	13.3
Calcium	5740 J	6120 J
Chromium	576.5	918
Cobalt	21	19.7
Copper	444.5	576
Cyanide	3.8 J	1.5 J
Iron	27850 J	29200 J
Lead	484	661
Magnesium	4435	5130
Manganese	378.5 J	384 J
Mercury	3.05	3.1
Nickel	35 J	39.4 J
Potassium	963.5	1180
Selenium	1.95 J	1.8 J
Silver	0.605 J	0.76 J
Sodium	462	562
Thallium	0.95 J	1.2 J
Vanadium	59	72.6
Zinc	2085	2290

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TABLE 2-134
SEDIMENT DATA HITS TABLE -STATION BW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-BW-01	SD-BW-02	SD-BW-03	SD-BW-04	SD-BW-05
VOCs (ug/Kg)					
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA
SVOCs (ug/Kg)					
2-Methylnaphthalene	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)					
4,4'-DDD	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA
Metals (mg/Kg)					
Aluminum	19250	15700	16000	18900	15500
Antimony	19.75 J	11.1 J	12.5	11.8	11.5
Arsenic	656 J	772 J	1360 J	725 J	689 J
Barium	81.9	181	144 J	117 J	173 J
Beryllium	1.35	1.2	1.3	1.4	1.1
Cadmium	10.75 J	12.2 J	6	10.9	11.9
Calcium	10200	5210	5990	9350	6610
Chromium	2305	720	934 J	1440 J	1590 J
Cobalt	27.45	40.7	53.6	23.6	57.5
Copper	836	535	550 J	743 J	648 J
Iron	54850	121000	189000	88300	127000
Lead	570.5	405	457	513	455
Magnesium	4035	3450	3440	4390	3560
Manganese	521	1510	1530 J	696 J	1180 J
Mercury	2.3 J	3 J	1.4	3.6	1.8
Nickel	33.7	32.6	38	37.6	46.9
Potassium	975.5	1160	747 J	1010 J	799 J
Selenium	5.3 J	6.1 J	11.5 J	8.8 J	9.4 J
Silver	0.94	2.5	1.3	2.2	1.4
Sodium	883.5 J	939 J	959 J	1860 J	1000 J
Thallium	3.85 J	6.7 J	18.1 J	8 J	12 J
Vanadium	82.9	65.2	73.6	79.9	74.8
Zinc	1780	1710	1620	1810	3050

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TABLE 2-134
SEDIMENT DATA HITS TABLE -STATION BW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-BW-01	SD-BW-02	SD-BW-03	SD-BW-04	SD-BW-05
AVS-SEM (mg/Kg)					
Arsenic	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)					
Total Combustible Organics	NA	NA	NA	NA	NA
Total Organic Carbon	160000	177000	138000	160000	173000

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TABLE 2-135
SEDIMENT DATA HITS TABLE - STATION CB-01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-01-01	SD-CB-01-02	SD-CB-01-03	SD-CB-01-04	SD-CB-01-05	SD-CB-01-06	SD-CB-01-07	SD-CB-01-08	SD-CB-01-09
Metals (mg/Kg)									
Aluminum	4230	16000	13900 J	21100 J	7600 J	11300 J	14800 J	11400 J	6730 J
Antimony	2 UJ	1.5 UJ	1.5 UJ	1.5 UJ	0.77 J	0.57 UJ	4 J	1.7 J	0.87 UJ
Arsenic	31.8	80.8	45.2 J	98.7 J	18.65 J	12.5 J	35 J	44.5 J	8.2 J
Barium	16.3 U	46.3	25.6	22.2	19.35	13.9 U	86.9	46.5	35.3
Beryllium	0.33	1.2	1.3	2	0.35	0.75	1.9	0.72	0.52
Cadmium	1.8 J	16.1 J	10.6 J	5.2 J	1.7 J	1.1 J	5.5 J	1.8 J	1.6 J
Calcium	3810	9550	6770	8250	1345	805	3680	4020	7220
Chromium	75.4	584	490 J	347 J	62.9 J	42.7 J	216 J	244 J	27.5 J
Cobalt	3.1	33.4	2.8	3.9	2.45	5.6	2.3	3.8	0.79
Copper	87.6	513	1000 J	1090 J	122.5 J	102 J	438 J	368 J	58.1 J
Iron	9250	27200	8320	27200	6670	4250	5650	8100	4550
Lead	146 J	648 J	490 J	563 J	171 J	88.1 J	532 J	244 J	75 J
Magnesium	1000	3270	1650	1730	555	968	1280	1130	1020
Manganese	51.5	155	145 J	719 J	96.85 J	617 J	70.1 J	84 J	185 J
Mercury	0.28	1.5	3.6 J	4.8 J	0.67 J	0.35 J	1.4 J	2 J	0.28 J
Nickel	5.3 J	31.8 J	5.7	5.5	6.15 J	7.5	7.8	10.9	4
Potassium	219 U	648 U	346	371	121	170	257	197	230
Selenium	2.4 J	5.6 J	4.2 J	8.3 J	1.7 J	1.8 J	5.1 J	3.9 J	1.2 J
Sodium	598	2160	1420	791	491	278	1290	644	532
Thallium	0.61 U	2.8 J	1 U	3.1	0.425 J	1	0.86 U	0.61 U	0.58 U
Vanadium	24.4	111	57.5	29.7	34.8	21.9	114	60	23.8
Zinc	58.4	1190	813	235	318.5	91.7	738	219	136
Wet Parameters									
pH	NA	NA	NA	NA	5.785	NA	NA	NA	5.98
Redox Potential	NA	NA	NA	NA	281.5	NA	NA	NA	324
Sulfide	NA	NA	NA	NA	91.2 J	NA	NA	NA	123 J

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TABLE 2-135
SEDIMENT DATA HITS TABLE - STATION CB-01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-01-10
Metals (mg/Kg)	
Aluminum	11800 J
Antimony	2 J
Arsenic	37.3 J
Barium	105
Beryllium	1
Cadmium	6.3 J
Calcium	13300
Chromium	83 J
Cobalt	2.3
Copper	111 J
Iron	9400
Lead	217 J
Magnesium	2660
Manganese	1260 J
Mercury	0.44 J
Nickel	7.1
Potassium	785
Selenium	2.9 J
Sodium	1130
Thallium	1.3 J
Vanadium	58.4
Zinc	421
Wet Parameters	
pH	NA
Redox Potential	NA
Sulfide	NA

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TABLE 2-136
SEDIMENT DATA HITS TABLE - STATION CB-02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-02-01	SD-CB-02-02	SD-CB-02-03	SD-CB-02-04	SD-CB-02-05	SD-CB-02-06	SD-CB-02-07	SD-CB-02-08	SD-CB-02-09
Metals (mg/Kg)									
Aluminum	8170	4630	3380	4680	4340	3130	4670	3900	1865
Antimony	1.5 J	0.89 J	2 J	1.7 J	1.9 J	2 J	2 J	1.1 J	1 J
Arsenic	18.5 J	11.4 J	55.5 J	16.3 J	24.7 J	56.2 J	45.3 J	21 J	7.55 J
Barium	55.7	13.6	23.8	16.4	29.6	23.6	389	52.7	125
Beryllium	0.49	0.3	0.2	0.29	0.25	0.23	0.34	0.28	0.16
Cadmium	5.8 J	3.6 J	2.65 J	3.1 J	0.91 J	4.1 J	3.2 J	2 J	2.75 J
Calcium	5310	2950	7180	4430	2540	1320	1730	3190	11650
Chromium	248 J	151 J	79.6 J	145 J	122 J	60.3 J	94.9 J	53.7 J	17.9 J
Cobalt	3.6	3.1	6.5	5.8	3.6	1.2	2.7	3.8	7.45
Copper	168	92	63.25 J	76.2	59.4 J	57.8 J	84.1 J	55.6 J	38.3 J
Iron	7190	3960	6630	5040	9640	5470	5320	6850	4565
Lead	191	87.1	81.95	112	67.4	75.5 J	342 J	67 J	73.8 J
Magnesium	2020	1130	750	1380	1370	460	846	1180	921
Manganese	64.7 J	34.6 J	51.3 J	34.5 J	108 J	38.9 J	43.2 J	55.5 J	87.9 J
Mercury	0.58	0.12	0.175	0.21	0.34	0.3	0.18	0.15	0.19 J
Nickel	11 J	6.4 J	7.05 J	12.8 J	7.2 J	2.1	8.2	8.1	9.7
Potassium	554	276	236	298	268	174	199	310	195.5
Selenium	3.1 J	2.1 J	1.7 U	2.5 J	1.3 J	2.8 U	1.3 U	1.1 J	2 U
Sodium	785	503	694.5 J	904	500	700 J	930 J	748 J	1290 J
Vanadium	32.3	20	26.75	45.6	22.3	19.4	25.2	18.5	19.25
Zinc	132 J	135 J	214.5 J	292 J	142 J	204 J	409 J	278 J	450 J
Wet Parameters									
pH	NA	NA	5.95	NA	NA	NA	NA	NA	5.67
Redox Potential	NA	NA	246	NA	NA	NA	NA	NA	374
Sulfide	NA	NA	231 J	NA	NA	NA	NA	NA	112 J

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TABLE 2-136
SEDIMENT DATA HITS TABLE - STATION CB-02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-02-10
Metals (mg/Kg)	
Aluminum	5620
Antimony	1.3 J
Arsenic	14.6 J
Barium	55.6
Beryllium	0.33
Cadmium	2.8 J
Calcium	3330
Chromium	88.2 J
Cobalt	4.6
Copper	58.1 J
Iron	4470
Lead	90.8 J
Magnesium	1310
Manganese	41.3 J
Mercury	0.16
Nickel	10.2
Potassium	375
Selenium	0.97 U
Sodium	1400 J
Vanadium	37.2
Zinc	243 J
Wet Parameters	
pH	NA
Redox Potential	NA
Sulfide	NA

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TABLE 2-137
SEDIMENT DATA HITS TABLE - STATION CB-03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-03-01	SD-CB-03-02	SD-CB-03-03	SD-CB-03-04	SD-CB-03-05	SD-CB-03-06	SD-CB-03-07	SD-CB-03-08	SD-CB-03-09
Metals (mg/Kg)									
Aluminum	16100 J	4050 J	5850 J	5530	10400 J	12800	11200	15000	9390
Antimony	0.64 UJ	0.43 UJ	0.48 UJ	0.54 UJ	4.5 J	4.2 J	3.5 UJ	4.8 J	0.86 UJ
Arsenic	44 J	9.1 J	19.8 J	13.9	111 J	510	117	233	483
Barium	30.7 J	21	20.7	20.95	86.7 J	93.6 J	36.6	95.5	64.9 J
Beryllium	0.5	0.2	0.26	0.31	0.71 J	0.91	0.61	0.85	0.77
Cadmium	3.3 J	1.1 J	1.2 J	0.77 J	17.5 J	23.1 J	5.7 J	6.4 J	12 J
Calcium	3240	1980	1680	1505	8550 J	7700	4670	11100	9000
Chromium	153 J	38.7 J	43.5 J	59.55	672 J	768	514	646	751
Cobalt	9.7 J	5.9	5.7	4.35	13.4 J	130 J	6	14.4	7.9 J
Copper	124 J	29.2 J	36.3 J	40.55	580 J	670 J	396	332	325 J
Iron	17900	8230	9890	8930	11400 J	66100	11100	43400	66400
Lead	114 J	27.4 J	28.1 J	24.4 J	434 J	443 J	296 J	301 J	260 J
Magnesium	2030	1720	2270	2590	2740 J	3320	3290	4950	2410
Manganese	113 J	233 J	242 J	88.8	348 J	581	91.2	353	212 J
Mercury	0.22 J	0.058 J	0.065 J	0.1105 J	1.5 J	2.9	2.9	1.1	0.7
Nickel	17	8.7	10.7	10.8 J	31.6 J	78.3 J	18.4 J	38.9 J	26.2 J
Potassium	370 J	387	466	382 U	595 UJ	851 UJ	690 U	1160 U	547 UJ
Selenium	2.5 J	0.69 J	1 J	1.5 J	R	8.8	2.8 J	5.4 J	6.6
Silver	0.43 U	0.29 U	0.32 U	0.11 U	R	3.2 J	0.15 U	0.4 U	R
Sodium	989	326	391	657	6240 J	8880 J	1440	2830	1330 J
Thallium	1.5 J	1.2	1.4	0.48 U	R	1.7 U	0.63 U	1.7 U	0.86 U
Vanadium	25.4 J	13.5	16.1	19.55	63.6 J	66.2 J	54.8	97.4	97.4 J
Zinc	597	135	181	196	2430 J	5270	645	1260	537 J
Wet Parameters									
pH	NA	NA	NA	5.44	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	367	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	29.6 J	NA	NA	NA	NA	NA

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TABLE 2-137
SEDIMENT DATA HITS TABLE - STATION CB-03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-03-10	SD-CB-03-11	SD-CB-03-12
Metals (mg/Kg)			
Aluminum	7080	6210	7560
Antimony	1.3 UJ	1.1 UJ	0.92 UJ
Arsenic	131	1410	188
Barium	29.3	52.4 J	65.8
Beryllium	0.44	0.47	0.46
Cadmium	4.4 J	10 J	3.2 J
Calcium	4080	6600	3410
Chromium	718	702	415
Cobalt	10.3 J	7 J	16.3 J
Copper	195 J	237 J	263 J
Iron	15100	86500	27000
Lead	114 J	166 J	149 J
Magnesium	1610	1780	2200
Manganese	43.6 J	105 J	986
Mercury	0.81	0.65	3.6
Nickel	14.7 J	34.1 J	17.2 J
Potassium	318 UJ	426 UJ	300 UJ
Selenium	2 J	6.8	3.5
Silver	0.12 U	R	R
Sodium	1020 J	1920 J	1200 J
Thallium	0.52 U	0.92 U	0.51 U
Vanadium	34.2 J	49.9 J	26.3 J
Zinc	568	1230 J	724
Wet Parameters			
pH	6.28	NA	NA
Redox Potential	248	NA	NA
Sulfide	163 J	NA	NA

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TABLE 2-138
SEDIMENT DATA HITS TABLE - STATION CB-04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-04-01	SD-CB-04-02	SD-CB-04-03	SD-CB-04-04	SD-CB-04-05	SD-CB-04-06	SD-CB-04-07	SD-CB-04-08	SD-CB-04-09	SD-CB-04-10
Metals (mg/Kg)										
Aluminum	13000	8730	13800	4670	10600	9840	9090	7420	10300	6920
Antimony	2.1	7.2	4.4	0.67 J	3.2 J	3.15	1.3	3.3	6.7	3.5
Arsenic	81.1	89.8	48.8	16.5	88.6	325.5	43.7	129	151	141
Barium	70.1	67	72.7	20.9	109	37.75	35.8	41.4	84.6	72.3
Beryllium	1	0.63 J	0.97	0.25 J	0.79 J	0.55	0.38 J	0.33 J	0.77	0.55
Cadmium	7.1	2.4	2.3	0.68	8.9	1.55	0.41	3.2	7.2	5.8
Calcium	6370	6440	4460	2070	11200	2505	3380	3030	10400	8920
Chromium	129	132	568	74	203	224.5	35.2	79.7	119	107
Cobalt	8.4	11.3	9.7	5.6	18.9	6.25	6.5	5.3	7.9	7.8
Copper	161	358	329	47.7	247	173	60.3	119	201	150
Iron	10300	86200	15300	7950	20400	39000	14200	12400	8820	25100
Lead	292	248	409	59.6	358	171	123	108	199	117
Magnesium	1520	1240	2650	1960	3210	2765	3680	2310	2260	1740
Manganese	199	181	311	281	2410	144.5	140	123	72.5	177
Mercury	0.49	2.2	1.2	0.22	0.8	1.05	0.33	0.18	0.46	0.34
Nickel	19.7	48.4	177	10.1	35.4	59.55	12.4	11.9	21	17.7
Potassium	438	353	426	305	642	673	1160	664	608	496
Selenium	2.9	4.5	3.3	0.58 U	4.4	2.6 J	0.95 J	2.7	3.5	5.1 J
Silver	0.29 J	11.5	0.2 U	0.19 U	0.53 U	0.25 J	0.2 U	0.2 U	0.23 J	0.24 J
Sodium	726	838 J	682	324	1870	564.5	465	435	467	562
Thallium	0.59 U	5.3	0.6 U	0.58 U	1.6 U	3.1	0.61 U	0.6 U	0.6 U	0.61 U
Vanadium	77.9	72.1	85.4	18.5	63	35.35	34.5	36.6	72.1	57.6
Zinc	508	853	8750	201	970	307.5	112	474	1120	679
TOC/TCO (mg/Kg)										
Total Organic Carbon	298000	276000	171000	44300	202000	95200	96500	130000	180000	247000

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TABLE 2-139
SEDIMENT DATA HITS TABLE - STATION CB-06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-04-01	SD-CB-04-02	SD-CB-04-03	SD-CB-04-04	SD-CB-04-05	SD-CB-04-06	SD-CB-04-07	SD-CB-04-08	SD-CB-04-09
Metals (mg/Kg)									
Aluminum	10700	8860	5430	4130	6840	8000	6520	10800	4540
Antimony	1.8 U	1.7 U	7.8	1.9 U	1.8 U	2.2 J	1.8 U	1.8 U	1.8 U
Arsenic	65.5 J	83.8 J	257 J	24.9 J	167 J	97.7 J	45 J	134 J	22.4 J
Barium	46.3	35	50.4	8.4	59.1	59.1	59.5	43.9	15
Beryllium	0.66	0.41	0.33 J	0.22 U	0.22 J	0.23	0.2 U	0.47	0.2 U
Cadmium	34.6	4.9	10.6	0.88	4.4	11	11.2	4.9	1
Calcium	11400	8370	15300	1260	11200	8280	5910	3540	1780
Chromium	969	416	214	31.8	152	312	259	178	59.1
Cobalt	9	12.7	11.3	3.3	5.2	6.9	25	10	3.2
Copper	386	209	172	39.9	132	238	176	188	53.1
Iron	8690	11600	15600	5580	16100	13400	7280	26800	7980
Lead	328	224	149	19.9	91.4	166	133	138	39.6
Magnesium	2950	2330	2110	1470	2120	2230	1910	2060	1640
Manganese	81.4 J	64.9 J	56.6 J	50 J	133 J	66.9 J	74 J	107 J	61.4 J
Mercury	0.53	0.27	0.15	0.04 U	0.05 J	0.13	0.11	0.3	0.19
Nickel	49.4	22.2	24.4	6.2	17.7	18.1	17.5	14	7
Potassium	648	380	527	253	484	609	390	605	312
Selenium	3 J	0.77 UJ	1.7 J	0.86 UJ	2 J	2.6 J	0.81 UJ	2 J	0.81 UJ
Silver	0.2 U	0.19 U	0.27 J	0.22 U	0.2 U	0.22 J	0.2 U	0.2 U	0.2 U
Sodium	839	613	1130	225	706	643	510	457	269
Thallium	4.8	2.7	6.1	1.5 U	3.2	3.2	2.4	4.7 J	1.8 J
Vanadium	103	91.8	84.4	10.4	38.2	72	50.2	43.4	14.4
Zinc	1850 J	1990 J	2460 J	301 J	773 J	1210 J	3840 J	1010 J	250 J
TOC/TCO (mg/Kg)									
Total Organic Carbon	139000	127000	214000	10500	177000	174000	212000	98600	86600

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TABLE 2-139
SEDIMENT DATA HITS TABLE - STATION CB-06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-04-10
Metals (mg/Kg)	
Aluminum	6125
Antimony	1.8 U
Arsenic	83.1 J
Barium	26.25
Beryllium	0.2 U
Cadmium	2.35
Calcium	2755
Chromium	212
Cobalt	5.2
Copper	202
Iron	13900
Lead	80.7
Magnesium	1750
Manganese	92.95 J
Mercury	0.56
Nickel	9.75
Potassium	333.5
Selenium	0.975 J
Silver	0.2 U
Sodium	434.5
Thallium	2.5
Vanadium	22.45
Zinc	521 J
TOC/TCO (mg/Kg)	
Total Organic Carbon	89300

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TABLE 2-140
SEDIMENT DATA HITS TABLE - STATION CB-07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-07-01	SD-CB-07-02	SD-CB-07-03	SD-CB-07-04	SD-CB-07-05	SD-CB-07-06
Metals (mg/Kg)						
Aluminum	9880	8400	13500	6080	5240	4710
Arsenic	210 J	412 J	234 J	96.9 J	20.2 J	13.3 J
Barium	88	98.4	56.8	40.7	16.8	13.4
Beryllium	0.51 J	0.63	1.1	0.27 J	0.2 U	0.19 U
Cadmium	8.6	8.4	5.6	1.5	0.48	0.25 J
Calcium	7200	5660	3720	3310	2420	1210
Chromium	557	256	784	336	136	53.1 J
Cobalt	40.6	21.7	15.5	10.7	4	2.6
Copper	304	312	437	106	58.6	56.5 J
Iron	39800	83000	31800	26500	12100	8280
Lead	389	327	377	134	58.9	26.2 J
Magnesium	2400	2080	1870	2050	2470	2070
Manganese	523 J	990 J	506 J	645 J	102 J	84.3
Mercury	0.69	0.52	1.4	0.66	0.09 J	0.1 J
Nickel	38.9	31.8	23.3	14.3	9.7	7.8
Potassium	573	381	354	310	306	388
Selenium	3.5 J	6.5 J	4.1 J	2.2 J	0.79 UJ	0.78 UJ
Silver	0.33 J	0.51	0.19 U	0.23 U	0.2 U	0.19 U
Sodium	1340	755	551	460	318	338
Vanadium	66.9	60.2	102	39.8	29	15.8
Zinc	1810 J	1190 J	671 J	327 J	145 J	74.6
TOC/TCO (mg/Kg)						
Total Organic Carbon	167000	275000	141000	141000	73500	14800

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TABLE 2-141
SEDIMENT DATA HITS TABLE - STATION JY
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-JY-06	SD-JY-07	SD-JY-08	SD-JY-09	SD-JY-10	SD-JY-11	SD-JY-12	SD-JY-13
Metals (mg/Kg)								
Aluminum	4680	9230	13700	10500	8870	3950	17300	15200
Antimony	6.95	12.3	19.5	7.5	1.8 U	1.9 U	1.8 U	1.8 U
Arsenic	28.65 J	96.4 J	95.1 J	84.3 J	105	44.4	399	482
Barium	167 J	353 J	188 J	129 J	56.4	20	121	109
Beryllium	0.245 J	0.55	0.88	0.64	0.32 J	0.21 UJ	0.98 J	0.7 J
Cadmium	9.9	21	11.1	14.4	7	1.4	14.3	13.6
Calcium	10250	6660	10700	8510	3450	1450	6600	11900
Chromium	287 J	1250 J	1710 J	746 J	1330	124	1240	1130
Cobalt	6.4	10.9	11.4	17.8	24.5	5.9	12.5	23.1
Copper	180.5 J	320 J	741 J	344 J	304 J	122 J	677 J	577 J
Iron	18900	58700	24300	31400	17100 J	8240 J	29300 J	55100 J
Lead	389.5	1000	1210	736	346	47.6	486	367
Magnesium	1935	2380	2850	3020	1770	1310	3270	3520
Manganese	278.5 J	297 J	332 J	396 J	319	103	268	555
Mercury	0.1 UJ	0.39 U	1.8	0.05 U	0.62	0.18 J	2.3	1.6
Nickel	60.8	150	82.9	56.3	20.6	8.7	35.1	35.2
Potassium	452 J	615 J	535 J	644 J	545	426	689	1090
Selenium	3.75 J	5.1 J	4.4 J	4.7 J	0.8 UJ	0.84 UJ	4.1 J	5.1 J
Silver	0.385 J	0.73	0.67	0.9	0.2 U	0.21 U	1.8	1.5
Sodium	791.5 J	755 J	818 J	687 J	493 J	459 J	771 J	1650 J
Thallium	1.7 J	6.9 J	NA	3.6 J	2.5	1.5 U	2	2.4
Vanadium	43.9	90.6	78.8	68.8	29.8	10.2	62.9	53.1
Zinc	1880	2720	2850	2330	1350	308	2020	2750
PCB/Pesticides (ug/Kg)								
Aroclor 1254	1045	2600	1700	1100	490	190 U	330	230 J
Aroclor 1260	1055	2400	1900	1900	430	190 U	360	260
TOC/TCO (mg/Kg)								
Total Organic Carbon	218500	176000	192000	187000	78500	15400	180000	167000

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TABLE 2-141
SEDIMENT DATA HITS TABLE - STATION JY
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-JY-14	SD-JY-15
Metals (mg/Kg)		
Aluminum	8260	4230
Antimony	2.1 U	3.1
Arsenic	99.3	13.7 J
Barium	68.1	55.3
Beryllium	0.23 UJ	0.19 U
Cadmium	15.1	3.3 J
Calcium	8710	1800
Chromium	499	69.6
Cobalt	6.3	7.1
Copper	320 J	190
Iron	10900 J	30000
Lead	251	400 J
Magnesium	2180	2070
Manganese	209	171
Mercury	0.78	0.1 J
Nickel	25.1	42.8
Potassium	663	562
Selenium	1.9 UJ	1.3 J
Silver	0.75	0.19 U
Sodium	1430 J	360 J
Thallium	1.6 U	2.1
Vanadium	31.9	18.7
Zinc	1570	417 J
PCB/Pesticides (ug/Kg)		
Aroclor 1254	270 J	1200
Aroclor 1260	300 J	1200
TOC/TCO (mg/Kg)		
Total Organic Carbon	207000	45300

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TABLE 2-142
SEDIMENT DATA HITS TABLE - STATION KFSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-KF-01	SD-KF-02	SD-KF-03	SD-KF-04	SD-KF-05	SD-KF-06	SD-KF-07	SD-KF-08
Metals (mg/Kg)								
Aluminum	4180	3510	9080	5590	5815	2860	2870	2550
Arsenic	41.3	31.1	90.4	53.5	43.2	16.6	13.2	11.7
Barium	28.6	26.8	54.7	44.7	45.75	19.4	17	15.9
Beryllium	0.28	0.24	0.6	0.35	.37	0.16 U	0.18 U	0.11 U
Cadmium	0.36 U	0.48 U	1.1	0.91	.99	0.22 UJ	0.33 U	0.12 U
Calcium	2320	1890	3550	2720	2885	1200	1410	1390
Chromium	80.5	53	113	106	100.7	21.2	27	20.8
Cobalt	5.8	5.4	10	8.7	8.95	3.8	4.4	3.1
Copper	63.9	42.5	185	89.9	88.65	27.1	25	21.9
Iron	13300	10700	18700	14900	15400	7170	7240	6580
Lead	109	72.4	157	129	188	36.9	31.6	43.4
Magnesium	1820	1570	2520	2090	2295	1380	1390	1230
Manganese	290	258	503	409	326.5	205	214	83.5
Mercury	0.25 J	0.23 J	1.6 J	0.78 J	0.74 J	0.1 J	0.16 J	0.12 J
Nickel	6.4	5.8	10.1	8.4	10.7	3.2 U	2.5 U	5.3 U
Potassium	316 J	324 J	510 J	397 J	363.5 J	281 J	274 J	246
Selenium	0.6 UJ	0.58 UJ	0.61 UJ	0.6 UJ	0.6 UJ	0.59 UJ	0.6 UJ	0.59 UJ
Silver	0.46 J	0.39 U	0.64 J	0.48 J	0.69 J	0.39 U	0.4 U	0.39 U
Sodium	244 J	212 J	286 J	268 J	233.5 J	161 J	150 U	147 U
Vanadium	19.5	14.5	29.6	23.8	26.05	10.6	10.7	9.1
Zinc	263	224	461	397	394	152	146	115 J
TOC/TCO (mg/Kg)								
Total Organic Carbon	22100	14900	40000	21300	46650	3900 J	6400 J	2600 J

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TABLE 2-142
SEDIMENT DATA HITS TABLE - STATION KFSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-KF-09	SD-KF-10
Metals (mg/Kg)		
Aluminum	6610	5830
Arsenic	49.6	34.3
Barium	41.4	40
Beryllium	0.51	0.33
Cadmium	0.81	0.89
Calcium	2750	2410
Chromium	69.6	87.6
Cobalt	7.5	7.6
Copper	157	85
Iron	12300	13300
Lead	83.4	134
Magnesium	1920	2230
Manganese	368	255
Mercury	0.47 J	0.68
Nickel	7.6	12.6
Potassium	275 J	409
Selenium	0.61 J	0.61 UJ
Silver	0.4 U	0.44 J
Sodium	230 J	154 U
Vanadium	19.1	23.6
Zinc	359	324 J
TOC/TCO (mg/Kg)		
Total Organic Carbon	19900	34200

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TABLE 2-143
SEDIMENT DATA HITS TABLE - STATION LF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LF-01	SD-LF-02
Metals (mg/Kg)		
Aluminum	19100	18700
Arsenic	100	81.9
Barium	141	149
Beryllium	1.1 J	0.95
Cadmium	10.5	7.6
Calcium	6400	6210
Chromium	424	258
Cobalt	24.8	19.5
Copper	471	381
Cyanide	2.6 J	2.6 J
Iron	37900	37800
Lead	861	594
Magnesium	5840	5910
Manganese	445	539
Mercury	1.3 J	1.1 J
Nickel	43.4	36.8
Potassium	1610 J	1590
Selenium	4.5 J	2.8 J
Silver	1.9 UJ	0.5 J
Thallium	0.98 J	0.64 J
Vanadium	81.2	69.6
Zinc	2280	1650

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TABLE 2-144
SEDIMENT DATA HITS TABLE - STATION LM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LM-01	SD-LM-02	SD-LM-03
Metals (mg/Kg)			
Aluminum	14600	25000	16900
Arsenic	60.1	144	80.4
Barium	173	368	206
Beryllium	0.71	1.4	0.95
Cadmium	5.7	12.6	11.2
Calcium	6870	9180	6030
Chromium	170	428	322
Cobalt	19.6	37.5	28.8
Copper	249	578	496
Cyanide	1.6 J	0.29 UJ	0.31 UJ
Iron	64900	75300	61800
Lead	478	850	929
Magnesium	12900	9910	9220
Manganese	534	1550	822
Nickel	31.2	58.3	37.1
Potassium	4390	3040	2580
Selenium	1.8 J	2.3 J	2.7 J
Silver	0.46 UJ	0.5 J	0.81 J
Thallium	0.31 J	0.67 J	0.7 J
Vanadium	60.1	124	83.8
Zinc	1320	3230	2810

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TABLE 2-145
SEDIMENT DATA HITS TABLE - STATION LP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LP-01	SD-LP-02	SD-LP-03	SD-LP-04	SD-LP-05	SD-LP-06	SD-LP-07	SD-LP-08	SD-LP-09
Metals (mg/Kg)									
Aluminum	5400	5200	9140	20400	7120	11000	4280	5630	4840
Antimony	2.6 UJ	1.8 UJ	1.9 UJ	5.1 J	1.9 UJ	1.9 UJ	1.8 UJ	1.8 UJ	1.7 UJ
Arsenic	20.7 J	48.1 J	30 J	485 J	60.1 J	25.95 J	23.6 J	81.8 J	74.9 J
Barium	26	31.6	45.5	37.6	31.7	51.5	14.4	18.8	21.9
Beryllium	0.29 U	0.27 J	0.57	0.92	0.37 J	0.69	0.2 U	0.38 J	0.26 J
Cadmium	1.3 J	1.1 J	3.3 J	5.6 J	2.5 J	3.8 J	1.4 J	3.5 J	1.2 J
Calcium	1630	2130	4220	3600	2160	3745	1250	2190	1210
Chromium	36.2 J	54.8 J	22.6 J	124 J	112 J	25.9 J	23.2 J	54.1 J	69.2 J
Cobalt	6.4	6.3	15.4	8.2	8.2	10.55	3.6	6.2	4.8
Copper	66.6 J	64.1 J	36.3 J	1560 J	192 J	70.35 J	65.7 J	235 J	142 J
Iron	10900	9710	10100	13600	12800	11500	7590	7630	9940
Lead	49.3 J	52.7 J	19.6 J	400 J	81.6 J	40.35 J	27.5 J	73 J	104 J
Magnesium	2470	1700	1990	2450	1640	2290	1640	1170	1250
Manganese	131	185	333	256	195	244	87.8	104	271
Mercury	0.17 J	0.42	0.23 J	1.4	1	0.225 J	0.19 J	0.86	0.83
Nickel	9.7	7.7	16.7	30.6	9.8	10.95	5.9	7.2	6.9
Potassium	494	267	335	425	334	246.5	327	199	324
Selenium	1.2 UJ	0.97 J	0.83 U	3.1	0.83 U	0.84 U	0.8 U	0.78 U	1 J
Silver	0.29 U	0.2 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.2 U	0.19 U
Sodium	506	505	662	461	408	688.5	374	372	285
Thallium	2 U	1.8 J	2.4 J	2.9 J	2.5 J	1.325 J	1.6 J	1.8 J	1.8 J
Vanadium	14.6	13	21.9	33.7	14.2	19.05	10.5	10.1	11.1
Zinc	306	315	2800	800	656	2415	236	1210	248
TOC/TCO (mg/Kg)									
Total Organic Carbon	4800 J	18200	68200	53200	43400	49500	15100	29800	21700

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TABLE 2-145
SEDIMENT DATA HITS TABLE - STATION LP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LP-10	SD-LP-11	SD-LP-12	SD-LP-13	SD-LP-14	SD-LP-15
Metals (mg/Kg)						
Aluminum	6610	9930	4620	2300	2270	4600
Antimony	1.8 UJ	2.2 U	1.8 U	1.7 U	1.7 U	1.8 U
Arsenic	73.4 J	62	13.95	5.4	5.9	18.4
Barium	29.4	68.9	22	11.2	16.7	23.6
Beryllium	0.36 J	0.59	0.26	0.14	0.15	0.26
Cadmium	2.4 J	1.9	0.14 J	0.12 U	0.12 U	0.25 J
Calcium	1980	3900	1340	704	841	1690
Chromium	45.2 J	134	30.85	9.7	8.2	37
Cobalt	7.6	9.2	4.55	2.8	2.4	3.7
Copper	150 J	149	29.05	9.6	6.6	32.4
Iron	12300	23800	9210	4420	5420	8040
Lead	122 J	196	35.45	6.8	6.4	27.5
Magnesium	1650	3520	2345	1360	1160	2010
Manganese	205	182	107.5	47.5	112	117
Mercury	0.41	0.7	0.16 J	0.1 UJ	0.09 UJ	0.23 J
Nickel	8.5	15.2	9.1	3.5	0.59 J	3.3
Potassium	401	868 J	608.5 J	471 J	545 J	366 J
Selenium	0.92 J	2.9 UJ	0.88 UJ	0.59 UJ	0.9 UJ	1.5 UJ
Silver	0.2 U	0.76 J	0.41 U	0.39 U	0.39 U	0.42 U
Sodium	443	463	296.5 J	322	292 J	374
Thallium	2 J	2.2 U	1.8 U	1.7 U	1.7 U	1.9 U
Vanadium	14	39.8	16.45	6.5	7.2	14.6
Zinc	632	625	98.1	15.2	22.6	113
TOC/TCO (mg/Kg)						
Total Organic Carbon	35400	NA	NA	NA	NA	NA

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TABLE 2-146
SEDIMENT DATA HITS TABLE - STATION MP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-MP-01	SD-MP-02
Metals (mg/Kg)		
Aluminum	9140	10600
Antimony	1.1 J	1.5 J
Arsenic	54.8	53.4
Barium	67.8	76.2
Beryllium	0.47	0.54
Cadmium	4.4	5.1
Calcium	3720 J	4480 J
Chromium	156	142
Cobalt	12.4	12.8
Copper	178	186
Cyanide	0.46 J	3.3 J
Iron	20100 J	20200 J
Lead	249	318
Magnesium	3310	3890
Manganese	308 J	290 J
Mercury	0.89	0.83
Nickel	21.6 J	24.2 J
Potassium	808	1170
Selenium	0.84 U	1 J
Sodium	279 J	369 J
Thallium	0.54 J	0.4 J
Vanadium	32.2	38.6
Zinc	930	945

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TABLE 2-147
SEDIMENT DATA HITS TABLE - STATION NRSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-NR-01	SD-NR-02	SD-NR-03	SD-NR-04	SD-NR-05
Metals (mg/Kg)					
Aluminum	8110	9220	4980	6070	4880
Arsenic	215	221	106	131	156
Barium	65.5	46.7	25.4	32.2	36.1
Beryllium	0.53	0.94	0.35	0.39	0.3
Cadmium	2.7	0.49 U	0.95	1.5	1.3
Calcium	3610	4060	1610	2500	2090
Chromium	255	258	156	158	104
Cobalt	9.3	6.3	5.8	5.6	5.2
Copper	251	365	140	155	99.3
Iron	25600	21000	11500	20200	18800
Lead	203	249	129	145	80.8
Magnesium	2570	2630	1500	2000	1770
Manganese	317	152	95.4	133	122
Mercury	2.5	2.4	5.9	1.6	0.77
Nickel	16.1	12.3	8.7	9	7.8
Potassium	421	404	297	395	452
Selenium	2.4 J	2.3 J	1.4 J	1.8 J	0.86 J
Silver	2.3	2.4	0.96	0.97	0.93
Sodium	182 J	190 U	298 J	342	294 J
Vanadium	29.9	32.6	17.1	22.1	16.4
Zinc	595 J	235 J	226 J	316 J	341 J
TOC/TCO (mg/Kg)					
Total Organic Carbon	48900	59400	15900	24300	18800

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TABLE 2-148
SEDIMENT DATA HITS TABLE - STATION TT-27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-27-01	SD-TT-27-02	SD-TT-27-03	SD-TT-27-04
Metals (mg/Kg)				
Aluminum	15800	7855	7080	7660
Antimony	0.56 UJ	0.42 UJ	0.77 UJ	0.87 J
Arsenic	129	34.45	142	12.3 J
Barium	96.5	387.5	296	46.9
Beryllium	0.97	0.455	0.53	0.4
Cadmium	6.8 J	2.35	2	3.7 J
Calcium	5230	2460	3730	1920
Chromium	300	179	74.2	30.9 J
Cobalt	13.7 J	4.8	6	6.7
Copper	365 J	97.9 J	110 J	54.3 J
Iron	31600	15000	18000	13900
Lead	734 J	202.5 J	135 J	122 J
Magnesium	4640	2275	2170	2880
Manganese	493 J	110.9 J	135 J	153 J
Mercury	1.3	0.1415 J	0.14 J	0.15
Nickel	27.5 J	12.5	14	14.8
Potassium	898	400.5	379	784
Selenium	3.4 J	2.05 J	2 J	1.9 J
Sodium	1830 J	629.5 J	683 J	1370 J
Vanadium	70.9 J	50.8	44	36
Zinc	850	411.5 J	439	558 J

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TABLE 2-149
SEDIMENT DATA HITS TABLE - STATION TT-28
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-28-01	SD-TT-28-02	SD-TT-28-03
Metals (mg/Kg)			
Aluminum	11400	16700	21600
Antimony	11.9 J	18.9 J	26.3 J
Arsenic	811 J	459 J	987 J
Barium	81.8	97.9	104
Beryllium	0.87	1	1.5
Cadmium	12.7 J	14.2 J	17.1 J
Calcium	5900	7520	6910
Chromium	1390 J	4240 J	2820 J
Cobalt	32.5 J	23.8 J	32.2 J
Copper	592 J	964 J	1330 J
Iron	61300	50600	88300
Lead	338 J	269 J	657 J
Magnesium	1780	1870	2100
Manganese	789 J	599 J	663 J
Mercury	4.2	5	3
Nickel	23.4	27.5	29.7 J
Potassium	576	619	625
Selenium	7.5 J	8 J	10.2 J
Silver	4 J	3.1 J	5.3 J
Sodium	4950 J	5130 J	5460 J
Vanadium	44	60.5	69.6 J
Zinc	2230 J	2160 J	3160 J

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TABLE 2-150
SEDIMENT DATA HITS TABLE - STATION TT-29
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-29-01	SD-TT-29-02	SD-TT-29-03	SD-TT-29-03-TR
VOCs (ug/Kg)				
Acetone	NA	NA	NA	1100 J
Metals (mg/Kg)				
Aluminum	13500 J	17300 J	17900 J	NA
Antimony	1.1 J	1.1 UJ	10.1 J	NA
Arsenic	629 J	561 J	1050 J	NA
Barium	73.25 J	79.3 J	60.3 J	NA
Beryllium	0.975	0.88	1.1	NA
Cadmium	11.15 J	13.6 J	15.2 J	NA
Calcium	5855	7610	7640	NA
Chromium	2420 J	5500 J	1460 J	NA
Cobalt	36.4 J	35.7 J	31.8 J	NA
Copper	704 J	893 J	1340 J	NA
Iron	60400	45200	115000	NA
Lead	316 J	649 J	538 J	NA
Magnesium	1905	3440	1970	NA
Manganese	700 J	470 J	1190 J	NA
Mercury	6.9 J	5.6 J	13.3 J	NA
Nickel	29.85	34.8	26.3	NA
Potassium	434.5 J	804 J	473 J	NA
Selenium	8.15 J	6.3 J	8.6 J	NA
Silver	1.15	1.6	1.3	NA
Sodium	3210	3370	4530	NA
Thallium	7.6 J	5 J	14.3 J	NA
Vanadium	45.9 J	96.9 J	57.1 J	NA
Zinc	2525	2250	3770	NA

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TABLE 2-151
SEDIMENT DATA HITS TABLE - STATION TT-30
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-30-01	SD-TT-30-01-TR	SD-TT-30-02	SD-TT-30-03
VOCs (ug/Kg)				
1,1,1-Trichloroethane	NA	110 J	NA	NA
Acetone	NA	7300 J	NA	NA
Methyl Acetate	NA	530 J	NA	NA
Toluene	NA	22 J	NA	NA
SVOCs (ug/Kg)				
Benzo(a)pyrene	NA	33 J	NA	NA
Benzo(b)fluoranthene	NA	47 J	NA	NA
Chrysene	NA	40 J	NA	NA
Fluoranthene	NA	71 J	NA	NA
Pyrene	NA	55 J	NA	NA
Metals (mg/Kg)				
Aluminum	16100 J	17900	5780 J	17400 J
Antimony	0.9 J	23.6 J	1.3 J	0.53 UJ
Arsenic	612 J	541	113 J	1080 J
Barium	124 J	85	36.3 J	32.7 J
Beryllium	1.1	1.3 J	0.4	0.91
Cadmium	9.8 J	5.2	4 J	7.1 J
Calcium	8710	5960	1650	3810
Chromium	1250 J	2290	623 J	5310 J
Cobalt	30.4 J	22.9 J	13.9 J	9.8
Copper	674 J	835	253 J	3760 J
Iron	71600	51500	17900	12300
Lead	420 J	664	248 J	425 J
Magnesium	3900	3280	1310	1370
Manganese	1910 J	980	205 J	206 J
Mercury	4.6 J	1.7 J	4.2 J	89.2 J
Nickel	35.1	26.9	12.4	8
Potassium	633 J	784 J	204 J	171
Selenium	9.3 J	1 U	2.7 J	3.8 J
Silver	2.2	1 U	0.41 U	0.36 U
Sodium	2820	468	929	1660
Thallium	9.7 J	1.1 U	2.5 J	1.5
Vanadium	59.8 J	66.2	24 J	21
Zinc	1560	1370 J	644	1170
AVS-SEM (mg/Kg)				
Cadmium	NA	3.3936	NA	NA
Copper	NA	434.3654	NA	NA
Lead	NA	365.19	NA	NA
Mercury	NA	1.18354 J	NA	NA
Nickel	NA	13.082001	NA	NA
SEM/AVS Ratio	NA	260.6	NA	NA
Zinc	NA	766.84116 J	NA	NA
TOC/TCO (mg/Kg)				
Total Organic Carbon	NA	240000	NA	NA

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TABLE 2-152
SEDIMENT DATA HITS TABLE - STATION TT-31
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-31-01	SD-TT-31-02	SD-TT-31-03
Metals (mg/Kg)			
Aluminum	9550 J	9130 J	14100 J
Arsenic	8.5 J	11 J	30.3 J
Barium	62.8 J	51.6 J	159 J
Beryllium	0.47	0.46	0.7
Cadmium	4.7 J	2.3 J	5.5 J
Calcium	6540	4040	7730
Chromium	138 J	123 J	295 J
Cobalt	8.7 J	8.8 J	19.2 J
Copper	102 J	56.7 J	181 J
Iron	15600	15700	40700
Lead	332 J	190 J	309 J
Magnesium	3630	3300	5280
Manganese	213 J	361 J	1210 J
Mercury	1.8 J	0.94 J	1.5 J
Nickel	22.4	19.7	35.6
Potassium	577 J	581 J	1020 J
Selenium	2.1 J	1.8 J	4.1 J
Silver	0.38 U	0.3 U	0.6 J
Sodium	1730	912	2020
Vanadium	43.3 J	38.1 J	56.5 J
Zinc	433	280	678

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TABLE 2-153
SEDIMENT DATA HITS TABLE - STATION TT-32
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-32-01	SD-TT-32-02	SD-TT-32-02-TR	SD-TT-32-03
VOCs (ug/Kg)				
Acetone	NA	NA	260 J	NA
SVOCs (ug/Kg)				
Benzo(a)anthracene	NA	NA	400	NA
Benzo(a)pyrene	NA	NA	470 J	NA
Benzo(b)fluoranthene	NA	NA	810	NA
Benzo(g,h,i)perylene	NA	NA	230 J	NA
Benzo(k)fluoranthene	NA	NA	180 J	NA
bis(2-Ethylhexyl)phthalate	NA	NA	370	NA
Butylbenzylphthalate	NA	NA	130 J	NA
Chrysene	NA	NA	460	NA
Fluoranthene	NA	NA	1000	NA
Indeno(1,2,3-cd)pyrene	NA	NA	210 J	NA
Phenanthrene	NA	NA	450	NA
Pyrene	NA	NA	860	NA
PCB/Pesticides (ug/Kg)				
4,4'-DDE	NA	NA	0.78 J	NA
Metals (mg/Kg)				
Aluminum	5080	5590	11500	9730
Antimony	0.71 UJ	2.3 UJ	9.1 J	1.5 UJ
Arsenic	94.2	198	313	403
Barium	35.1	47	87.2	112
Beryllium	0.29	0.41	0.82 J	0.62
Cadmium	3.2 J	6.5 J	5.7	4.7 J
Calcium	2090	3860	4880	4960
Chromium	430	368	699	621
Cobalt	8.9 J	25.9 J	26.4 J	27 J
Copper	183 J	278 J	403	351 J
Iron	14800	20400	33300	57200
Lead	152 J	172 J	288	251 J
Magnesium	1490	1600	2890	2420
Manganese	524	133	372	2040
Mercury	2.3	3.8	0.44	4.3
Nickel	10.1 J	21.6 J	21.3	19.3 J
Potassium	264 UJ	310 UJ	646 J	498 UJ
Selenium	2.2 J	2.6 J	1 U	5.4
Sodium	981 J	2450 J	400 U	1890 J
Vanadium	21.7 J	29.1 J	38.1 J	37 J
Zinc	518	1960	1250 J	1050
AVS-SEM (mg/Kg)				
Cadmium	NA	NA	3.5616	NA
Copper	NA	NA	202.06335	NA
Lead	NA	NA	160.82864	NA
Mercury	NA	NA	0.82246 J	NA
Nickel	NA	NA	11.550192	NA
SEM/AVS Ratio	NA	NA	5.2	NA
Sulfide	NA	NA	89.559	NA
Zinc	NA	NA	725.79612	NA
TOC/TCO (mg/Kg)				
Total Organic Carbon	NA	NA	150000 J	NA

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TABLE 2-154
SEDIMENT DATA HITS TABLE - STATION TT-33
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-33-01	SD-TT-33-02	SD-TT-33-02-TR	SD-TT-33-03
VOCs (ug/Kg)				
Acetone	NA	NA	200 J	NA
SVOCs (ug/Kg)				
Benzo(a)anthracene	NA	NA	110 J	NA
Benzo(a)pyrene	NA	NA	140 J	NA
Benzo(b)fluoranthene	NA	NA	260	NA
Benzo(g,h,i)perylene	NA	NA	60 J	NA
Benzo(k)fluoranthene	NA	NA	99 J	NA
bis(2-Ethylhexyl)phthalate	NA	NA	81 J	NA
Chrysene	NA	NA	160	NA
Fluoranthene	NA	NA	290	NA
Indeno(1,2,3-cd)pyrene	NA	NA	60 J	NA
Phenanthrene	NA	NA	130 J	NA
Pyrene	NA	NA	270	NA
PCB/Pesticides (ug/Kg)				
4,4'-DDD	NA	NA	1.2	NA
4,4'-DDE	NA	NA	1.7	NA
Metals (mg/Kg)				
Aluminum	11700	8670	11400	11400
Antimony	3.5 J	9.1 J	4.3 J	4.3 J
Arsenic	275 J	180 J	288 J	288 J
Barium	72.1	41.2	78.4	78.4
Beryllium	0.67	0.39	0.72	0.72
Cadmium	7.4 J	5.6 J	6.4 J	6.4 J
Calcium	5130	2390	3690	3690
Chromium	592 J	2200 J	735 J	735 J
Cobalt	20.7	18.8	27.4	27.4
Copper	489 J	444 J	426 J	426 J
Iron	32700	16800	37800	37800
Lead	210	155 J	285 J	285 J
Magnesium	2510	1330	2560	2560
Manganese	752 J	154 J	693 J	693 J
Mercury	3.7	2.1 J	5.6 J	5.6 J
Nickel	16.6 J	11.6	22	22
Potassium	507	243	455	455
Selenium	4.2 J	2.7 J	4.6 J	4.6 J
Silver	2 J	1.1 J	2.3 J	2.3 J
Sodium	2790 J	2010 J	2440 J	2440 J
Vanadium	31.7	26.8	42.2	42.2
Zinc	1040 J	1090 J	1050 J	1050 J
AVS-SEM (mg/Kg)				
Cadmium	NA	NA	2.2064	NA
Copper	NA	NA	177.7492	NA
Lead	NA	NA	104.03512	NA
Mercury	NA	NA	1.14342 J	NA
Nickel	NA	NA	6.062677	NA
SEM/AVS Ratio	NA	NA	4.64	NA
Sulfide	NA	NA	62.595	NA
Zinc	NA	NA	400.55538	NA
TOC/TCO (mg/Kg)				
Total Organic Carbon	NA	NA	86000 J	NA

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TABLE 2-155
SEDIMENT DATA HITS TABLE - STATION UF
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-UF-01	SD-UF-02	SD-UF-02-TR	SD-UF-03
VOCs (ug/Kg)				
1,1,1-Trichloroethane	NA	NA	79.5 J	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	37.5 J	NA
Acetone	NA	NA	565 J	NA
Methyl Acetate	NA	NA	150 J	NA
SVOCs (ug/Kg)				
Benzo(b)fluoranthene	NA	NA	290 J	NA
Fluoranthene	NA	NA	270 J	NA
Pyrene	NA	NA	270 J	NA
PCB/Pesticides (ug/Kg)				
4,4'-DDE	NA	NA	3.05 J	NA
Metals (mg/Kg)				
Aluminum	21700	24800	23350	22700
Antimony	R	R	8.15	R
Arsenic	127	171	177.5	121
Barium	164	147	174	198
Beryllium	1.2	1.5	1.6 J	1.2
Cadmium	12.8	17.5	19.15	10.6
Calcium	8600	7650	8300	8310
Chromium	545	954	805.5	389
Cobalt	28.3	31.7	32.15 J	26
Copper	553	699	681.5	493
Cyanide	1	4.4	NA	1.8 J
Iron	44300 J	45700 J	47100	46900
Lead	860	1230	1070	607
Magnesium	6300	6550	6045	7350
Manganese	878	478	568.5	923 J
Mercury	2 J	1.8 J	0.3 J	1.7
Nickel	47.5	53.8	46.95	46.4
Potassium	1590	1700	1975 J	1930
Selenium	2.2	2.7	0.99 U	2.3 J
Silver	1.2 J	1.4 J	0.99 U	0.42 J
Sodium	636 J	855 J	1165	663 J
Thallium	0.86	1.1	1.1 U	0.68 J
Vanadium	85.6 J	110 J	95.3	78.6
Zinc	2600	3270	3035 J	2060
AVS-SEM (mg/Kg)				
Cadmium	NA	NA	11.4576	NA
Copper	NA	NA	316.055375	NA
Lead	NA	NA	657.1866	NA
Mercury	NA	NA	0.06018 J	NA
Nickel	NA	NA	19.5877875	NA
SEM/AVS Ratio	NA	NA	2.45	NA
Sulfide	NA	NA	504.291 J	NA
Zinc	NA	NA	1780.4234 J	NA
Wet Parameters (mg/Kg)				
pH	NA	NA	NA	6.25
Redox Potential	NA	NA	NA	-42
Sulfide	NA	NA	NA	975 J
TOC/TCO (mg/Kg)				
Total Organic Carbon	NA	NA	150000 J	NA

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TABLE 2-156
SEDIMENT DATA HITS TABLE - STATION UM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-UM-01	SD-UM-02	SD-UM-03
Metals (mg/Kg)			
Aluminum	14300	23000	19400
Arsenic	224.5	323	171
Barium	205.5	366	181
Beryllium	0.895	1.4	1.2
Cadmium	7.65	11.7	12
Calcium	3755	6580	5920
Chromium	302	356	307
Cobalt	44.85	72.2	30.6
Copper	362.5	565	501
Cyanide	0.565 J	1 J	1.6 J
Iron	71150	106000	49200
Lead	973.5	1290	802
Magnesium	3735	6040	5310
Manganese	1665	3060	1020
Mercury	R	R	0.89 J
Nickel	40.25	64.3	46.7
Potassium	1042.5	1740	1510
Selenium	2.2 J	2.8 J	4 J
Silver	1.015 J	1.3 J	1.1 J
Thallium	0.49 J	0.59 J	0.78 J
Vanadium	118.5	180	114
Zinc	1995	3090	2760

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TABLE 2-157
SEDIMENT DATA HITS TABLE - STATION WG
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-01	SD-WG-02	SD-WG-03	SD-WG-04	SD-WG-05	SD-WG-06	SD-WG-07	SD-WG-08	SD-WG-09
VOCs (ug/Kg)									
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/Kg)									
Aluminum	13200	12400	20300	11500	5110	15000	25300	14300	17050
Antimony	6.6 UJ	7 J	13 J	6.8 J	2.5 UJ	10 J	24.5 J	8.5 J	9.5 J
Arsenic	42.1 J	63.4 J	282 J	41.4 J	57.9 J	311 J	1450 J	88.3 J	118.15 J
Barium	177	75.7	150	108	47	101	126	82.3	88.3
Beryllium	1.2	1.2	1.7	1.1	0.61	1.5	2.2	1.1	1.4
Cadmium	6.7	5.4	7.6	9.6	3.3	7.5	5.6	9.5	4.45
Calcium	12000	14800	13000	13100	9470	14200	12800	16700	17350
Chromium	687	455	1850	463	132	793	1940	414	380.5
Cobalt	41.1	20.5	31.6	21.2	6.9	13.5	44.1	13.7	15.45
Copper	551	822	1170	630	184	694	1330	635	445
Cyanide	0.31 UJ	1.2 J	1.6 J	0.31 UJ	0.39 J	1.8	1.6 J	1.3 J	1.55 J
Iron	11100	12400	41000	16600	10200	25300	119000	13300	24850
Lead	470	436	648	421	154	722	810	586	750
Magnesium	2010	1470	2010	1460	598	1300	1550	1770	1825
Manganese	1910	1580	1160	971	216	1100	1880	1330	608
Mercury	0.97 J	1.4 J	3 J	0.92 J	0.17	1.3 J	11.6 J	3.3 J	0.66 J
Nickel	37.5	29.7	44.7	30.3	10	26.3	35.6	30	31.3
Potassium	483	377 J	623	351 J	117 J	334 J	401 J	328 J	335.5 J
Selenium	3.1	8.6	6.3 J	4.1	1.9 J	6.2	6.5	3.8	6.25 J
Silver	0.47 UJ	0.43 UJ	0.41 UJ	0.47 UJ	0.4 UJ	0.46 UJ	0.43 UJ	0.39 UJ	0.44 UJ
Sodium	478 J	603 J	627 J	538 J	228 J	539 J	553 J	557 J	555 J
Thallium	0.7 J	0.37 J	0.61 J	0.61 J	0.24 J	0.44 J	0.38 J	0.51 J	0.42 J
Vanadium	45.7	29.1	75.1	35.6	25	97.4	70.9	50.9	104.35
Zinc	702	925	1650	1550	491	910	2000	1450	788
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-157
SEDIMENT DATA HITS TABLE - STATION WG
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-10	SD-WG-11	SD-WG-12	SD-WG-13	SD-WG-14	SD-WG-15	SD-WG-16	SD-WG-17	SD-WG-18
VOCs (ug/Kg)									
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/Kg)									
Aluminum	19000	8310	12000	25700	16000	8010	3680	3140	18000
Antimony	11.4 J	2.4 UJ	6.2 UJ	4.3 UJ	4.7 UJ	1 U	1.6 U	0.75 J	2.5 J
Arsenic	53.1 J	17.4 J	31.2 J	25.5 J	24.4 J	8.6 J	10 J	6.6	17.4
Barium	68.8	37.7	57.7	52.2	76	14.1	28.2	18.2	77.7
Beryllium	1.3	0.56	0.85	2.6	2.1	0.33	0.27 J	0.17 U	0.97
Cadmium	12.3	3.7	4.2	5.1	5.5	0.49	0.89	0.46	2.4
Calcium	13400	4060	11700	7120	10300	1910	2100	1200	4750
Chromium	2570	131	920	240	227	14.3	25.1	18.2	123
Cobalt	15.9	8.4	8.1	7	9	3.5 J	6.2	2.7 J	8.5
Copper	1010	169	736	361	302	18.8	33.2	21.3	159
Cyanide	0.72 J	0.19 UJ	0.4 UJ	0.33 UJ	0.51 J	0.33 J	0.32 J	0.4 J	0.94 J
Iron	15200	11200	9410	6040	9710	5330	4920	4920	17900
Lead	775	136	621	324	363	23.9	92.9	79.6	449
Magnesium	3140	2480	1720	684	1220	454	255 J	184 J	4610
Manganese	801	175	207	91.9	234	139	223	89.5	199
Mercury	0.6 J	0.29 J	0.84 J	0.34 J	0.31 J	0.09 U	0.22	0.1 J	0.5 J
Nickel	41.4	15.1	22.9	22	25	4.8	8.2	4.8	36.8
Potassium	813	676	377 J	173 J	272 J	95.4 J	84 J	89.6 J	823
Selenium	5.7	1.5 J	3.2	4.1	2.6	1.6 U	0.91	0.66 J	2 J
Silver	0.46 UJ	0.41 UJ	0.45 UJ	0.42 UJ	0.44 UJ	0.36 UJ	0.41 UJ	0.42 UJ	0.64 J
Sodium	647 J	159 J	514 J	585 J	652 J	78.9 J	112 J	R	R
Thallium	0.59 J	0.28 U	0.4 J	0.29 J	0.34 J	0.24 U	0.23 U	0.25 U	0.27 U
Vanadium	97.3	29.6	81.9	36.2	77.5	10.3	17	14.9	75
Zinc	2080	521	606	825	765	88	157	80.1	398
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-157
SEDIMENT DATA HITS TABLE - STATION WG
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-19	SD-WG-20
VOCs (ug/Kg)		
cis-1,2-Dichloroethene	NA	NA
Trichloroethene	NA	NA
SVOCs (ug/Kg)		
Acenaphthene	NA	NA
Acenaphthylene	NA	NA
Anthracene	NA	NA
Benzo(a)anthracene	NA	NA
Benzo(a)pyrene	NA	NA
Benzo(b)fluoranthene	NA	NA
Benzo(g,h,i)perylene	NA	NA
Benzo(k)fluoranthene	NA	NA
Chrysene	NA	NA
Dibenz(a,h)anthracene	NA	NA
Fluoranthene	NA	NA
Fluorene	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA
Naphthalene	NA	NA
Phenanthrene	NA	NA
Pyrene	NA	NA
PCB/Pesticides (ug/Kg)		
4,4'-DDD	NA	NA
4,4'-DDE	NA	NA
alpha-Chlordane	NA	NA
Aroclor 1248	NA	NA
Aroclor 1260	NA	NA
Dieldrin	NA	NA
Endosulfan I	NA	NA
Endrin	NA	NA
gamma-Chlordane	NA	NA
Metals (mg/Kg)		
Aluminum	14500	16250
Antimony	R	R
Arsenic	16.8	16.8
Barium	92.5	105.5
Beryllium	0.73	0.83
Cadmium	2.5	4.85
Calcium	4080	4415
Chromium	78.8	92.9
Cobalt	11.3	22.85
Copper	129	180.5
Cyanide	2.5 J	1.5 J
Iron	26400	25500
Lead	453	490
Magnesium	4460	5110
Manganese	359	797.5
Mercury	0.62	0.505
Nickel	44.2	79.2
Potassium	1010	1035
Selenium	1.6 J	1.32 J
Silver	0.72 J	2.95 J
Sodium	R	R
Thallium	0.26 U	0.27 U
Vanadium	64.8	68.75
Zinc	404	723
AVS-SEM (mg/Kg)		
Arsenic	NA	NA
Copper	NA	NA
Lead	NA	NA
Nickel	NA	NA
SEM/AVS Ratio	NA	NA
Sulfide	NA	NA
Zinc	NA	NA
TOC/TCO (mg/Kg)		
Total Combustible Organics	NA	NA

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TABLE 2-158
SEDIMENT DATA HITS TABLE - STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WH-01	SD-WH-02	SD-WH-03	SD-WH-04	SD-WH-05	SD-WH-06	SD-WH-07	SD-WH-07-TR	SD-WH-08
VOCs (ug/Kg)									
Acetone	NA	NA	NA	NA	NA	NA	NA	2700 J	NA
SVOCs (ug/Kg)									
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	660 J	NA
Metals (mg/Kg)									
Aluminum	14000	17500	8870	17400	15900	5420	5180	6705	9400
Antimony	11.4	15.1 J	18.6 J	34.5 J	20.6 J	31.7 J	22 J	24.35	9.9
Arsenic	30	424	123	210	370	22.6	12.5	24.2	4.7
Barium	89.4	92.6	53.9	107	132	54.3	70.9	75.85	85.5
Beryllium	1.4	1.4	0.7	1.6	1.3	0.36 J	0.45	0.685 J	1.3
Cadmium	15.1 J	8.1 J	4.6 J	11.1 J	14.3 J	1.6 J	1.9 J	3	0.87 J
Calcium	17500	12600	10500	11800	14700	12600	14700	14350	14300
Chromium	301	1170	212	1050	855	57	27.2	45.85	17.7
Cobalt	16	15.9	12.3	30.3	34.4	4.5	3 J	8.15	2.4 J
Copper	561	572	237	548	513	59	43.9	66.55	23.8
Cyanide	0.69	1	0.49	0.36 U	1.1	0.6	0.53	NA	0.42
Iron	8360	65300	20800	42600	76600	10400	8870	12400	4020
Lead	771	1030	1220	1770	942	2540	2380	1900	1050
Magnesium	3020	3260	1700	2410	3250	1330	1140	1380	1300
Manganese	154	501	176	612	747	180	105	101.2	73
Mercury	0.73 J	0.98 J	0.54 J	0.66 J	0.82 J	0.57 J	0.4 J	0.02 U	0.25 J
Nickel	44	31.3	18.9	43.7	42.4	12.9	13	14.5	11.8
Potassium	650	924	354 J	656	851	240 J	178 J	227 J	222 J
Selenium	3.2 J	3.7 J	2.9 J	4.1 J	4.1 J	1.7 J	2.3 J	1.55 J	1.6 J
Silver	0.46 J	0.44 UJ	0.42 UJ	0.41 UJ	0.45 UJ	0.43 UJ	0.45 UJ	1 U	0.46 UJ
Sodium	519	656	394 J	682	865	574	658	939.5	554
Thallium	1.5	0.53 J	0.36 J	0.8	1.1	0.32 J	0.3 J	1.1 UJ	0.27 U
Vanadium	67.7	123	58.9	163	100	46.5	50.8	57.1	32.3
Zinc	3230	1550	634 U	1750	2720	241 U	272 U	543 J	125 U
AVS-SEM (mg/Kg)									
Cadmium	NA	NA	NA	NA	NA	NA	NA	3.5728	NA
Copper	NA	NA	NA	NA	NA	NA	NA	57.51195	NA
Lead	NA	NA	NA	NA	NA	NA	NA	1359.45992	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	0.79237 J	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	17.853498	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	3.31	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	159.0555	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	604.73418	NA
Wet Parameters (mg/Kg)									
pH	6.14	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	-36	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	674 J	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	815000 J	NA

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TABLE 2-158
SEDIMENT DATA HITS TABLE - STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WH-09	SD-WH-10
VOCs (ug/Kg)		
Acetone	NA	NA
SVOCs (ug/Kg)		
Benzo(k)fluoranthene	NA	NA
Metals (mg/Kg)		
Aluminum	4720	12550
Antimony	35.4 J	15.1 J
Arsenic	19.2	15 J
Barium	67.5	67.05
Beryllium	0.28 J	0.695
Cadmium	2.5 J	1.6 J
Calcium	18700	12200
Chromium	21.9	53.45
Cobalt	4.1 J	3.1 J
Copper	52	50.35
Cyanide	0.42	0.26 J
Iron	12300	10250
Lead	1130	1940
Magnesium	1750	1910
Manganese	51.9	52.2
Mercury	R	0.425 J
Nickel	14.4	15.1
Potassium	347 J	385.5 J
Selenium	1.9 J	2.95 J
Silver	0.44 UJ	0.4 UJ
Sodium	973	570.5 J
Thallium	0.36 J	0.2225 J
Vanadium	64.5	67.75
Zinc	289 U	181
AVS-SEM (mg/Kg)		
Cadmium	NA	NA
Copper	NA	NA
Lead	NA	NA
Mercury	NA	NA
Nickel	NA	NA
SEM/AVS Ratio	NA	NA
Sulfide	NA	NA
Zinc	NA	NA
Wet Parameters (mg/Kg)		
pH	NA	5.65
Redox Potential	NA	-43
Sulfide	NA	183 J
TOC/TCO (mg/Kg)		
Total Organic Carbon	NA	NA

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TABLE 2-159
SEDIMENT DATA HITS TABLE - STATION WS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-01	SD-WS-02	SD-WS-03	SD-WS-04	SD-WS-05	SD-WS-06	SD-WS-07	SD-WS-08	SD-WS-09
Metals (mg/Kg)									
Aluminum	8490	11900	7490	5850	7560	3840	3570	13500	10600
Antimony	4.3 J	5.1 J	1.2 J	3.1 J	4.5 J	2.5 J	2.4 J	7.2 J	4.1 J
Arsenic	240	235	17.7	123	214	79.8	38.6	339	194
Barium	115.65	133	60.8	89.4	106	123	107	200	135
Beryllium	0.615	0.73	0.31 J	0.35 J	0.51	0.27 J	0.2 J	0.87	0.61
Cadmium	8.75	12.9	1.3	4.8	10.6	6.3	3.7	16.7	7.8
Calcium	7875 J	9790 J	8060 J	14800 J	14200 J	14900 J	16900 J	18300 J	14700 J
Chromium	637	875	67.7	252	459	257	68.3	1320	481
Cobalt	20	19	5.5	11.1	18.8	16.1	7.9	44.8	23.2
Copper	337	436	68	188	362	171	89.6	686	318
Cyanide	3.1 J	2.6 J	1.4 J	3.7 J	1.8 J	1.4 J	2.1 J	12.1 J	2.3 J
Iron	37050 J	43400 J	12800 J	20400 J	30400 J	20100 J	15300 J	52400 J	35600 J
Lead	308	360	165	194	251	170	177	490	352
Magnesium	2165	3180	2560	2260	2460	1560	1870	3570	3690
Manganese	1073 J	657 J	413 J	917 J	1020 J	1420 J	1120 J	1170 J	1210 J
Mercury	1.55 J	1.8 J	0.22 J	0.88 J	R	0.55 J	0.34 J	R	1.3 J
Nickel	33.75 J	40.6 J	18 J	20.2 J	28.1 J	21.9 J	17.4 J	46.3 J	34.6 J
Potassium	520 J	1000	647	915	1020	429 J	447	1270	1160
Selenium	2.4 J	2.6 J	0.79 J	1.4 J	1.8 J	1.6 J	1.1 J	3.8 J	1.8 J
Sodium	800.5	901	631	898	1970	980	1100	1310	948
Thallium	0.5 J	0.93 J	0.23 U	0.5 J	1.1 J	0.53 J	0.26 U	2.2 J	0.81 J
Vanadium	41.45	48.7	24.7	26.8	34.5	22.2	22.5	56.1	43.5
Zinc	1305	2140	299	1010	1820	1200	731	3440	1750

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TABLE 2-159
SEDIMENT DATA HITS TABLE - STATION WS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-10
Metals (mg/Kg)	
Aluminum	12200
Antimony	5.1 J
Arsenic	198
Barium	123
Beryllium	0.81
Cadmium	8.1
Calcium	15500 J
Chromium	623
Cobalt	23.5
Copper	407
Cyanide	5.6 J
Iron	30200 J
Lead	481
Magnesium	3870
Manganese	1360 J
Mercury	1.2 J
Nickel	40.5 J
Potassium	988
Selenium	3.4 J
Sodium	836
Thallium	0.76 J
Vanadium	53.2
Zinc	1720

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TABLE 2-160
SEDIMENT DATA HITS TABLE - STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WW-01	SD-WW-02	SD-WW-03	SD-WW-04	SD-WW-05	SD-WW-06	SD-WW-06-TR	SD-WW-07	SD-WW-08
VOCs (ug/Kg)									
Acetone	NA	NA	NA	NA	NA	NA	410 J	NA	NA
SVOCs (ug/Kg)									
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	330 J	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	610 J	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	300 J	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	500 J	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	480 J	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDE	NA	NA	NA	NA	NA	NA	2.1 J	NA	NA
Metals (mg/Kg)									
Aluminum	13450	10700	9740	10200	8590	8510	8280	8990	9750
Antimony	R	R	R	R	R	R	57.3 J	R	R
Arsenic	45.95 J	50.3 J	48.2 J	44.8 J	37.6 J	42.3 J	4.4 J	42.6 J	38.3 J
Barium	155.5	129	152	204	170	187	125	167	259
Beryllium	0.885	0.87	0.5 U	0.54 U	0.22 U	0.073 U	0.77 J	0.19 U	0.065 U
Cadmium	5.5 J	9.6 J	4.5 J	2.9 J	3 J	3.6 J	3.2	3.9 J	4.2 J
Calcium	10270	13900	9840	9800	11000	13700	16200	15100	12400
Chromium	8135 J	6790 J	3670 J	7250 J	15900 J	23400 J	6550	17400 J	24600 J
Cobalt	10.95	11.5	20.5	19.4	11.4	7.7	6.8	20.5	9.3
Copper	544	598	592	265	263	335	210	327	391
Iron	12800	9870	20000	20000	8050	7700	8430	10800	10600
Lead	401 J	247 J	176 J	203 J	232 J	321	369	495 J	393 J
Magnesium	1805	1390	1200	2200	1710	2070	2520	2400	2220
Manganese	417.5	535	803	543	363	234	186	139	196
Mercury	1.8	1.4	0.7	0.85	0.96	1.1	0.09 U	1.2	1.4
Nickel	28.65	18.9	20.7	27.2	20.3	21.5	21.9	23.4	28.9
Potassium	387.5	276	235	376	294	334	372 J	354	321
Selenium	5.95 J	3.7 J	4.9 J	5.1 J	5.3 J	5.7 J	1 U	5.1 J	5.5 J
Sodium	1530	1980	1480	1500	1400	1570	579 U	1940	2350
Thallium	0.99 J	0.65 UJ	1.4 J	0.92 J	0.86 J	1.9 J	1.1 UJ	2.2 J	2.7 J
Vanadium	85.55	39.8	63.1	103	57	52.7	56.9	60	79
Zinc	955.5	1280	1020	1030	920	1170	888 J	1400	1890
AVS-SEM (mg/Kg)									
Acid Volatile Sulfide	NA	NA	NA	NA	NA	NA	0.65	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	0.0287	NA	NA
Copper	NA	NA	NA	NA	NA	NA	1.3047	NA	NA
Lead	NA	NA	NA	NA	NA	NA	1.1423	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	0.0078 J	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	0.2361	NA	NA
SEM/AVS	NA	NA	NA	NA	NA	NA	23.75	NA	NA
Simultaneously Extracted Metal	NA	NA	NA	NA	NA	NA	15.435	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	13.8565	NA	NA
TOC/TCO (mg/Kg)									
Total Organic Carbon	NA	NA	NA	NA	NA	NA	760000 J	NA	NA

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TABLE 2-160
SEDIMENT DATA HITS TABLE - STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WW-08-02	SD-WW-09	SD-WW-10	SD-WW-11	SD-WW-12
VOCs (ug/Kg)					
Acetone	NA	NA	NA	NA	NA
SVOCs (ug/Kg)					
Benzo(b)fluoranthene	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)					
4,4'-DDE	NA	NA	NA	NA	NA
Metals (mg/Kg)					
Aluminum	6160	11300	12900	13600	13800
Antimony	1 UJ	R	R	R	R
Arsenic	27.9	54.6 J	52.8 J	37.4 J	44.2 J
Barium	124	281	267	3420	577
Beryllium	0.1 U	0.65 U	0.64 U	0.32 U	0.27 U
Cadmium	4.1	5.4 J	3.6 J	0.048 UJ	2.8 J
Calcium	8950	9770	9330	4220	6580
Chromium	10300	9520 J	8190 J	13000 J	18400 J
Cobalt	6.9	21	13.8	6.4	8.4
Copper	249 J	310	383	178	244
Iron	6740	16400	14100	11200	10700
Lead	243 J	315 J	329 J	147 J	344 J
Magnesium	1840	2190	2400	2250	2540
Manganese	149 J	445	328	95.4	175
Mercury	0.7	1.1	1.3	0.46	0.74
Nickel	20.7	27.8	25	20.1	23.2
Potassium	361	364	484	465	441
Selenium	2.5 U	5 J	4.9 J	3.2 J	4.4 J
Sodium	1600 J	1910	1650	1850	1820
Thallium	1.5 U	1.4 J	0.67 UJ	1.2 J	1.3 J
Vanadium	77.1	84.1	74.2	55.9	67.8
Zinc	1000	1360	1180	1460	1380
AVS-SEM (mg/Kg)					
Acid Volatile Sulfide	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA
SEM/AVS	NA	NA	NA	NA	NA
Simultaneously Extracted Metal	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)					
Total Organic Carbon	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-01-FW	SD-01-02-FW	SD-01-03-FW	SD-01-04-FW	SD-01-05-FW	SD-01-06-FW	SD-01-06-ME	SD-01-07-FW	SD-01-07-ME
VOCs (ug/Kg)									
1,1,1-Trichloroethane	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	197 UJ	14 UJ	228 UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	197 UJ	14 UJ	228 UJ
1,2-Dichloroethene(total)	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	NA	14 UJ	NA
2-Butanone	11 UJ	12 J	11 UJ	20 J	12 UJ	26 UJ	NA	14 UJ	NA
Acetone	43 UJ	77 UJ	23 UJ	120 UJ	120 UJ	57 UJ	NA	24 UJ	NA
Benzene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	26 UJ	14 UJ	30 UJ
Carbon Disulfide	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	NA	14 UJ	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	62 J	NA	58 J
Ethylbenzene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	26 UJ	14 UJ	30 UJ
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	37 UJ	52 UJ	11 UJ	49 UJ	52 UJ	26 UJ	197 UJ	14 UJ	228 UJ
Naphthalene	NA	NA	NA	NA	NA	NA	197 UJ	NA	228 UJ
Tetrachloroethene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	197 UJ	14 UJ	228 UJ
Toluene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	NA	14 UJ	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	197 UJ	NA	228 UJ
Trichloroethene	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	37 J	14 UJ	76 UJ
Vinyl Chloride	11 UJ	12 UJ	11 UJ	13 UJ	12 UJ	26 UJ	197 UJ	14 UJ	228 UJ
Xylene, m/p-	NA	NA	NA	NA	NA	NA	66 UJ	NA	76 UJ
SVOCs (ug/Kg)									
2-Methylnaphthalene	370 U	380 U	380 U	420 U	400 U	870 UJ	20 J	480 U	20 J
Acenaphthene	370 U	380 U	65 J	420 U	400 U	870 UJ	33 J	480 U	32 J
Acenaphthylene	370 U	380 U	380 U	420 U	400 U	870 UJ	33 J	480 U	37 J
Anthracene	43 J	380 U	120 J	27 J	400 U	150 J	92	480 U	100
Benzo(a)anthracene	120 J	380 U	250 J	90 J	400 U	650 J	1000	100 J	1100
Benzo(a)pyrene	93 J	380 U	210 J	89 J	400 U	850 J	930	130 J	920
Benzo(b)fluoranthene	98 J	380 U	170 J	90 J	400 U	1100 J	1400	150 J	1600
Benzo(g,h,i)perylene	370 U	380 U	120 J	420 U	400 U	1000 J	480	140 J	510
Benzo(k)fluoranthene	100 J	380 U	210 J	94 J	400 U	840 J	730	160 J	690
bis(2-Ethylhexyl)phthalate	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Butylbenzylphthalate	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Carbazole	370 U	380 U	74 J	420 U	400 U	870 UJ	NA	480 U	NA
Chrysene	160 J	380 U	290 J	130 J	400 U	1100 J	880	150 J	980
Dibenz(a,h)anthracene	370 U	380 U	380 U	420 U	400 U	870 UJ	120	480 U	110
Dibenzofuran	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Diethylphthalate	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Di-n-octylphthalate	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Fluoranthene	300 J	110 J	550 J	240 J	400 U	1500 J	2100	210 J	2200
Fluorene	370 U	380 U	54 J	420 U	400 U	870 UJ	89	480 U	89
Indeno(1,2,3-cd)pyrene	370 U	380 U	120 J	420 U	400 U	880 J	580	130 J	640
Naphthalene	370 U	380 U	380 U	420 U	400 U	870 UJ	24 J	480 U	23 J
N-nitrosodiphenylamine	370 U	380 U	380 U	420 U	400 U	870 UJ	NA	480 U	NA
Phenanthrene	290 J	100 J	500 J	200 J	400 U	590 J	840	74 J	900
Pyrene	290 J	130 J	580 J	250 J	400 U	1400 J	1900	260 J	1900
PCB/Pesticides (ug/Kg)									
4,4'-DDD	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	16 J	4.8 U	18 J
4,4'-DDE	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	24	4.8 U	28
4,4'-DDT	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	2.5 J	4.8 U	3.2 J
Aldrin	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.21 J
alpha-BHC	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.17 J
alpha-Chlordane	9.6 U	2 U	2 U	2.2 U	2 U	22 U	9.3 J	2.5 U	10 J
Aroclor 1248	190 U	38 U	38 U	42 U	40 U	430 U	46 J	48 U	70 J
Aroclor 1254	190 U	38 U	38 U	42 U	40 U	430 U	3.1 U	48 U	3.1 U
Aroclor 1260	190 U	38 U	38 U	42 U	40 U	430 U	47	48 U	69 J
beta-BHC	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.16 U
delta-BHC	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.19 J	2.5 U	0.16 U
Dieldrin	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.5 J	4.8 U	0.61 J
Endosulfan I	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.16 U
Endosulfan II	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.41	4.8 U	0.66
Endosulfan sulfate	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.67 J	4.8 U	0.78 J
Endrin	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	1.2 J	4.8 U	1.8 J
Endrin aldehyde	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	3.4 J	4.8 U	3.2 J
Endrin ketone	19 U	3.8 U	3.8 U	4.2 U	4 U	43 U	0.31 U	4.8 U	0.31 U
gamma-BHC (Lindane)	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.16 U
gamma-Chlordane	9.6 U	2 U	2 U	2.2 U	2 U	22 U	6.4 J	2.5 U	6.8 J
Heptachlor	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.16 U
Heptachlor Epoxide	9.6 U	2 U	2 U	2.2 U	2 U	22 U	0.16 U	2.5 U	0.16 U
Methoxychlor	96 U	20 U	20 U	22 U	20 U	220 U	1.6 U	25 U	1.6 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-01-FW	SD-01-02-FW	SD-01-03-FW	SD-01-04-FW	SD-01-05-FW	SD-01-06-FW	SD-01-06-ME	SD-01-07-FW	SD-01-07-ME
Metals (mg/Kg)									
Aluminum	2970	3000	3750	3290	3340	19000	12200 J	6770	13200 J
Antimony	0.55 J	0.5 UJ	0.93999 J	0.48 UJ	0.44 UJ	2.2 J	1.7 J	0.53 J	1.8 J
Arsenic	3.1	2.4	5	3	6.2	171	78.1	63.3	111
Barium	9.5	8.1	10.8	10.7	12.6	53.1	85.8	29.6	95.1
Beryllium	0.12 U	0.075 U	0.21 U	0.059 U	0.08599 U	1	0.87 J	0.3 U	0.98 J
Cadmium	0.046 U	0.045	0.18	0.092	0.089	37.7	6.8	3.9	8.5
Calcium	972	1040	1230	1050	840	3510	5420	1810	7510
Chromium	7.2	7.5	9.3	7.1	9.8	95.9	148 J	18.3	192 J
Cobalt	2.8	2.9	4.6	3.2	3.8	38.9	27.9 J	14.8	33.1 J
Copper	6.7	5.8	8.6	8.1	15	1250	305	155	436
Cyanide	0.52 U	0.54 U	0.47 U	0.49 U	0.41 U	1.4 U	NA	0.61 U	NA
Iron	5050	4960	6800	4830	7490	20000	31800 J	13200	32500 J
Lead	9 J	7.9 J	12.2 J	10.4 J	39.9 J	384 J	413 J	122 J	477 J
Magnesium	1310	1620	1940	1460	1320	3520	3480	2030	3430
Manganese	72.3	68.9	90.9	74.9	103	327	479	123	595
Mercury	0.022 UJ	0.025 UJ	0.018 U	0.028 U	0.023 U	0.63	1	0.095 U	1.1
Nickel	4.9	5.1	7.2	5.2	7	24.7	40.4 J	10.4	41.3 J
Potassium	380 J	396 J	436 J	449 J	351 J	937 J	1190 J	1030 J	1170 J
Selenium	0.68 UJ	0.62 UJ	0.43 UJ	0.59 UJ	0.55 UJ	2.2 UJ	5.1 J	0.66 UJ	1.4 J
Silver	0.34 U	0.31 U	0.51	0.3 U	0.28 U	0.7 U	0.75 J	0.33 U	0.66 J
Sodium	59.2 U	53.7 U	37.4 U	51.6 U	47.8 U	1080	583	165	611
Thallium	0.8 U	0.72 U	0.54	0.68999 U	0.64 U	2.9	0.63 UJ	1	0.43 UJ
Vanadium	9.4	7.8	11.6	8.5	10.1	34.6	56.4	15.8	55.3
Zinc	46.1	53.9	82.9	81.4	127	7380	2080 J	1470	2370 J
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	4.494 J	NA	8.239 J
Cadmium	0.74	0.2 U	0.14 UJ	0.28 U	0.21 U	33.6	8.96 UJ	3.8	10.08 J
Copper	2.7 U	4.4 U	9 U	14.6 U	33.7 U	635 J	3.175 UJ	84.2 U	5.08 J
Lead	8	6.9	11.8	33.1	31	372	387.464 J	56	441.336 J
Mercury	0.003 U	0.003 U	0.02	0.14	0.04	0.01 U	10.03 U	0.004 U	10.03 U
Nickel	1.5 U	4 U	24.2 U	53.9 U	52 U	88.4 U	50.4734 J	5.7 U	13.4987 J
SEM/AVS Ratio	0.27	3.3	0.92	2.0	0.12	0.5	0.41	0.54	0.4
Sulfide	70.62 J	9.309 J	39.162 J	27.927 J	526.44 J	7094.1 J	2311.2	1325.73 J	2564.79
Zinc	36.3	59.5	69.7	104	118	6430	1746.35 J	1440	1930.87 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	230000 J	NA	152000 J
Total Organic Carbon	114 U	2100	114 U	17000	116 U	65700	NA	9100	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-08-FW	SD-01-09-FW	SD-01-10-FW	SD-02-01-FW	SD-02-01-ME	SD-02-02-FW	SD-02-02-ME	SD-02-03-FW	SD-03-01-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	12 UJ	13 UJ	14 UJ	12 U	77 UJ	12 U	159 UJ	12 U	12 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	12 UJ	13 UJ	14 UJ	12 U	77 UJ	12 U	159 UJ	12 U	12 U
1,2-Dichloroethene(total)	12 UJ	13 UJ	14 UJ	12 U	NA	12 U	NA	12 U	12 U
2-Butanone	12 UJ	13 UJ	14 UJ	9 J	NA	12 U	NA	12 U	12 U
Acetone	12 UJ	68 UJ	62 UJ	52 U	NA	16 U	NA	31 U	30 U
Benzene	12 UJ	13 UJ	14 UJ	12 U	10 UJ	12 U	21 UJ	12 U	12 U
Carbon Disulfide	12 UJ	13 UJ	14 UJ	12 U	NA	12 U	NA	12 U	12 U
cis-1,2-Dichloroethene	NA	NA	NA	NA	26 UJ	NA	53 UJ	NA	NA
Ethylbenzene	12 UJ	13 UJ	14 UJ	12 U	10 UJ	12 U	21 UJ	12 U	12 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	14 UJ	62 UJ	51 UJ	25 U	77 UJ	12 U	159 UJ	24 U	19 U
Naphthalene	NA	NA	NA	NA	77 UJ	NA	159 UJ	NA	NA
Tetrachloroethene	12 UJ	13 UJ	14 UJ	12 U	77 UJ	12 U	159 UJ	12 U	12 U
Toluene	12 UJ	13 UJ	14 UJ	12 U	NA	12 U	NA	12 U	12 U
trans-1,2-Dichloroethene	NA	NA	NA	NA	77 UJ	NA	159 UJ	NA	NA
Trichloroethene	12 UJ	13 UJ	14 UJ	12 U	26 UJ	12 U	53 UJ	12 U	12 U
Vinyl Chloride	12 UJ	13 UJ	14 UJ	12 U	77 UJ	12 U	159 UJ	12 U	12 U
Xylene, m/p-	NA	NA	NA	NA	26 UJ	NA	53 UJ	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	390 U	420 U	480 U	410 U	12 J	410 U	20 J	410 U	390 U
Acenaphthene	390 U	420 U	480 U	410 U	R	410 U	30 J	410 U	390 U
Acenaphthylene	390 U	420 U	480 U	410 U	22 J	410 U	57 J	410 U	390 U
Anthracene	390 U	420 U	480 U	75 J	62 J	410 U	140	410 U	390 U
Benzo(a)anthracene	390 U	420 U	190 J	168 J	590	410 U	1500	410 U	390 U
Benzo(a)pyrene	390 U	420 U	280 J	190 J	620	410 U	1400	410 U	390 U
Benzo(b)fluoranthene	390 U	420 U	350 J	180 J	720	410 U	1700	410 U	390 U
Benzo(g,h,i)perylene	390 U	420 U	310 J	155 J	330	410 U	640	410 U	390 U
Benzo(k)fluoranthene	390 U	420 U	290 J	160 J	340	410 U	710	410 U	390 U
bis(2-Ethylhexyl)phthalate	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Butylbenzylphthalate	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Carbazole	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Chrysene	390 U	420 U	340 J	275 J	660	410 U	1400	410 U	390 U
Dibenz(a,h)anthracene	390 U	420 U	480 U	410 U	69 J	410 U	150	410 U	390 U
Dibenzofuran	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Diethylphthalate	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Di-n-octylphthalate	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Fluoranthene	390 U	420 U	390 J	315 J	1200	410 U	3000	410 U	390 U
Fluorene	390 U	420 U	480 U	410 U	44 J	410 U	97	410 U	390 U
Indeno(1,2,3-cd)pyrene	390 U	420 U	270 J	130.5 J	420	410 U	860	410 U	390 U
Naphthalene	390 U	420 U	480 U	410 U	13 J	410 U	24 J	410 U	390 U
N-nitrosodiphenylamine	390 U	420 U	480 U	410 U	NA	410 U	NA	410 U	390 U
Phenanthrene	390 U	420 U	170 J	210 J	390	410 U	970	410 U	390 U
Pyrene	390 U	420 U	550 J	420 J	1100	410 U	2500	410 U	390 U
PCB/Pesticides (ug/Kg)									
4,4'-DDD	3.9 U	4.2 U	4.8 U	3.875 J	20 J	4.1 U	25 J	4.1 U	3.9 U
4,4'-DDE	3.9 U	4.2 U	7.9 J	10.35 J	26 J	4.1 U	30	4.1 U	3.9 U
4,4'-DDT	3.9 U	4.2 U	4.8 U	4.1 U	1.8 J	4.1 U	2.4 J	4.1 U	3.9 U
Aldrin	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
alpha-BHC	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
alpha-Chlordane	2 U	2.2 U	2.5 U	2.1 U	11 J	2.1 U	16	2.1 U	2 U
Aroclor 1248	39 U	42 U	48 U	41 U	160 J	41 U	180 J	41 U	39 U
Aroclor 1254	39 U	42 U	48 U	41 U	3.2 U	41 U	3.3 U	41 U	39 U
Aroclor 1260	39 U	42 U	48 U	41 U	140	41 U	170	41 U	39 U
beta-BHC	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
delta-BHC	2 U	2.2 U	2.5 U	2.1 U	1.3 J	2.1 U	0.16 U	2.1 U	2 U
Dieldrin	3.9 U	4.2 U	4.8 U	4.1 U	0.45 J	4.1 U	0.47	4.1 U	3.9 U
Endosulfan I	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.17 U	2.1 U	2 U
Endosulfan II	3.9 U	4.2 U	4.8 U	4.1 U	0.21 J	4.1 U	0.28	4.1 U	3.9 U
Endosulfan sulfate	3.9 U	4.2 U	4.8 U	4.1 U	0.47 J	4.1 U	0.33 U	4.1 U	3.9 U
Endrin	3.9 U	4.2 U	4.8 U	4.1 U	1.3 J	4.1 U	1.9	4.1 U	3.9 U
Endrin aldehyde	3.9 U	4.2 U	4.8 U	4.1 U	1.6 J	4.1 U	1.9 J	4.1 U	3.9 U
Endrin ketone	3.9 U	4.2 U	4.8 U	4.1 U	0.32 UJ	4.1 U	0.33 U	4.1 U	3.9 U
gamma-BHC (Lindane)	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
gamma-Chlordane	2 U	2.2 U	2.5 U	2.1 U	8 J	2.1 U	11 J	2.1 U	2 U
Heptachlor	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
Heptachlor Epoxide	2 U	2.2 U	2.5 U	2.1 U	0.16 UJ	2.1 U	0.16 U	2.1 U	2 U
Methoxychlor	20 U	22 U	25 U	21 U	1.6 UJ	21 U	1.6 U	21 U	20 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-01-08-FW	SD-01-09-FW	SD-01-10-FW	SD-02-01-FW	SD-02-01-ME	SD-02-02-FW	SD-02-02-ME	SD-02-03-FW	SD-03-01-FW
Metals (mg/Kg)									
Aluminum	4040	3240	5860	5750	6570 J	5170	11200 J	3220	3540
Antimony	0.49 UJ	0.48 UJ	0.63 UJ	0.325 J	1.9 J	0.42 UJ	2.1 J	0.68 J	0.41 J
Arsenic	4.2	5.5	14	8.95	56.4	3.6	105	7.6	5.4
Barium	9.6	8.8	31	34.2	50.6	25.2	81.2	14	11.4
Beryllium	0.076 U	0.078 U	0.13 U	0.14 U	0.47 J	0.11 U	0.91 J	0.067 U	0.15 U
Cadmium	0.041 U	0.25	2.8	.52	3.8	0.035 U	16.1	0.23	0.028 U
Calcium	493	514	1160	1435	2610	1300	4600	739	1620
Chromium	7	6.9	15	18.45	103 J	7.5	190 J	19.8	9.9
Cobalt	2.8	2.6	8.5	7.3	17 J	5.2	33 J	4	4
Copper	16.6	28.4	102	29.75	128	10.3	381	11.7	7.5
Cyanide	0.51 U	0.72 U	0.54 U	0.59 U	NA	0.6 U	NA	0.68 U	0.64 U
Iron	5660	3830	9220	8975	16900 J	8290	26000 J	5200	5370
Lead	14.6 J	19.1 J	33.5 J	365.5 J	225 J	5.7 J	449 J	15.7 J	10.1
Magnesium	1360	913	2430	2445	2150	2650	2510	1560	1720
Manganese	60.4	48.5	116	116.5	206	92	390	70.4	69.1
Mercury	0.015 UJ	0.024 U	0.2	.063	0.37	0.021 U	1.1	0.031 U	0.06 J
Nickel	6.4	4.8	8.1	8.35	21.5 J	6.2	31 J	6.9	5.4
Potassium	288 J	224 J	1160 J	550.5 J	640 J	862 J	784 J	390 J	519 J
Selenium	0.61 UJ	0.6 UJ	0.79 UJ	0.43 UJ	1.6 J	0.53 UJ	2 J	0.67 UJ	0.43 U
Silver	0.3 U	0.3 U	0.39 U	0.22 U	0.4 J	0.26 U	0.91 J	0.33 U	0.21 U
Sodium	52.7 U	51.6 U	68.2 U	37.4 U	197	45.7 U	382	57.7 U	37 U
Thallium	0.71 U	0.68999 U	0.92 U	0.469995 J	0.53 UJ	0.82	0.48 UJ	0.78 U	0.5 U
Vanadium	7.3	6.5	16.3	16.5	32.2	15.3	46.1	9.7	9.6
Zinc	153	158	7670	245.5	992 J	34.8	5170 J	93.9	90.6
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	3.745 U	NA	3.745 J	NA	NA
Cadmium	1.8	0.44 U	5.8	.89	5.6 U	0.1 U	16.8 J	0.43 U	0.3 U
Copper	9.6 U	14.3 U	93.9 U	12.3 U	3.175 UJ	14.2 U	3.175 UJ	85 U	12 U
Lead	14.9	19.6	55.2	233	171.976 J	7.4	389.536 J	20.1	17.1
Mercury	0.01	0.004 U	0.004 U	0.004 U	10.03 U	0.003 U	10.03 U	0.02	0.02
Nickel	1.8 U	2.2 U	4 U	2.3 U	8.2166 J	26.6 U	28.7581 J	38.4 U	67.4 U
SEM/AVS Ratio	3.8	3.7	0.71	16.95	0.35	0.69	0.3	0.091	0.40
Sulfide	12.84 J	19.26 J	940.53 J	84.744 J	1113.87	19.902 J	4140.9	593.85 J	117.486 J
Zinc	92.8	139	1340	293	738.08 J	25.8	2418.53 J	104	90.9
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	125000 J	NA	160000 J	NA	NA
Total Organic Carbon	830	2410	11000	6525	NA	9420	NA	2690	1170

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-03-02-FW	SD-03-02-ME	SD-03-03-FW	SD-04-01-FW	SD-04-02-FW	SD-04-02-ME	SD-04-03-FW	SD-04-03-ME	SD-05-01-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	24 U	132 UJ	12 U	15 UJ	23 UJ	180 U	26 UJ	221 U	12 UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	24 U	132 UJ	12 U	15 UJ	23 UJ	180 U	26 UJ	221 U	12 UJ
1,2-Dichloroethene(total)	24 U	NA	12 U	15 UJ	23 UJ	NA	26 UJ	NA	12 UJ
2-Butanone	70	NA	12 U	15 UJ	23 UJ	NA	82 J	NA	12 UJ
Acetone	310 U	NA	12 U	64 U	48 U	NA	340 UJ	NA	12 UJ
Benzene	24 U	9 J	12 U	15 UJ	23 UJ	24 UJ	26 UJ	32 UJ	12 UJ
Carbon Disulfide	24 U	NA	12 U	15 UJ	23 UJ	NA	26 UJ	NA	12 UJ
cis-1,2-Dichloroethene	NA	28 J	NA	NA	NA	60 UJ	NA	74 UJ	NA
Ethylbenzene	24 U	18 UJ	12 U	15 UJ	23 UJ	24 UJ	26 UJ	29 UJ	12 UJ
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	24 U	132 UJ	12 U	36 UJ	23 UJ	180 U	29 UJ	221 U	12 UJ
Naphthalene	NA	132 UJ	NA	NA	NA	180 U	NA	221 U	NA
Tetrachloroethene	24 U	132 UJ	12 U	15 UJ	23 UJ	180 U	26 UJ	221 U	12 UJ
Toluene	24 U	NA	12 U	15 UJ	23 UJ	NA	26 UJ	NA	12 UJ
trans-1,2-Dichloroethene	NA	132 UJ	NA	NA	NA	180 U	NA	221 U	NA
Trichloroethene	24 U	44 UJ	12 U	15 UJ	23 UJ	60 UJ	26 UJ	74 UJ	12 UJ
Vinyl Chloride	24 U	132 UJ	12 U	15 UJ	23 UJ	180 U	26 UJ	221 U	12 UJ
Xylene, m/p-	NA	44 UJ	NA	NA	NA	60 UJ	NA	74 UJ	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	800 U	16 J	400 U	510 U	750 U	41 J	870 UJ	70	390 UJ
Acenaphthene	800 U	45 J	400 U	510 U	140 J	110 J	340 J	170 J	390 UJ
Acenaphthylene	800 U	39 J	400 U	510 U	750 U	170	350 J	160	390 UJ
Anthracene	81 J	120	400 U	180 J	560 J	420	960 J	640	390 UJ
Benzo(a)anthracene	320 J	1300	400 U	610 J	2000 J	3100	3900 J	3200	150 J
Benzo(a)pyrene	420 J	1000	400 U	600 J	2000 J	4100	4200 J	3500	170 J
Benzo(b)fluoranthene	800 U	1400	400 U	600 J	1800 J	5100	4800 J	6000	390 UJ
Benzo(g,h,i)perylene	350 J	570	400 U	460 J	1200 J	1900	2300 J	2100	120 J
Benzo(k)fluoranthene	800 U	640	400 U	490 J	1900 J	2100	3500 J	3800	390 UJ
bis(2-Ethylhexyl)phthalate	800 U	NA	400 U	510 U	750 U	NA	930 UJ	NA	390 UJ
Butylbenzylphthalate	800 U	NA	400 U	510 U	750 U	NA	870 UJ	NA	390 UJ
Carbazole	800 U	NA	400 U	510 U	130 J	NA	400 J	NA	390 UJ
Chrysene	590 J	1300	400 U	750 J	2700 J	3700	5900 J	3800	220 J
Dibenz(a,h)anthracene	800 U	110	400 U	150 J	490 J	720	1100 J	890	390 UJ
Dibenzofuran	800 U	NA	400 U	510 U	750 U	NA	170 J	NA	390 UJ
Diethylphthalate	800 U	NA	400 U	510 U	750 U	NA	870 UJ	NA	390 UJ
Di-n-octylphthalate	800 U	NA	400 U	510 U	750 U	NA	870 UJ	NA	390 UJ
Fluoranthene	740 J	2600	400 U	1400 J	4200 J	8300	7100 J	8500	340 J
Fluorene	800 U	150	400 U	510 U	180 J	290	470 J	490	390 UJ
Indeno(1,2,3-cd)pyrene	330 J	620	400 U	380 J	1100 J	2600	2100 J	2500	100 J
Naphthalene	800 U	18 J	400 U	510 U	750 U	56 J	160 J	96 J	390 UJ
N-nitrosodiphenylamine	800 U	NA	400 U	510 U	750 U	NA	870 UJ	NA	390 UJ
Phenanthrene	370 J	1000	400 U	700 J	2100 J	3200	4600 J	3400	190 J
Pyrene	880 J	2600	400 U	1400 J	3800 J	6700	7000 J	6000	310 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	21	94	4 U	25 U	37 U	160	140 J	37 J	R
4,4'-DDE	18 J	29	4 U	25 U	37 U	91	56 J	20 J	R
4,4'-DDT	8 U	5.8 J	4 U	25 U	37 U	21 J	R	4.4 J	R
Aldrin	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.3 J	R
alpha-BHC	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
alpha-Chlordane	5.2 J	11 J	2.1 U	13 U	19 U	21	R	29 J	R
Aroclor 1248	80 U	160 J	40 U	250 U	370 U	200 J	R	44 J	R
Aroclor 1254	80 U	3.2 U	40 U	250 U	370 U	2.6 U	R	3.3 U	R
Aroclor 1260	80 U	110	40 U	250 U	370 U	94	R	160	R
beta-BHC	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
delta-BHC	4.1 U	2.3 J	2.1 U	13 U	19 U	1.9 U	R	1.3 J	R
Dieldrin	8 U	3.2 U	4 U	25 U	37 U	3.9 U	R	0.73 J	R
Endosulfan I	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
Endosulfan II	8 U	3.2 U	4 U	25 U	37 U	3.9 U	R	0.49	R
Endosulfan sulfate	8 U	3.2 U	4 U	25 U	37 U	3.9 U	R	0.33 J	R
Endrin	8 U	3.2 U	4 U	25 U	37 U	5 J	R	3.2 J	R
Endrin aldehyde	8.7 J	3.2 U	4 U	25 U	37 U	11 J	R	4.9 J	R
Endrin ketone	8 U	3.2 U	4 U	25 U	37 U	3.9 U	R	0.33 U	R
gamma-BHC (Lindane)	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
gamma-Chlordane	4.1 U	9.3 J	2.1 U	13 U	19 U	16 J	R	22 J	R
Heptachlor	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
Heptachlor Epoxide	4.1 U	1.6 U	2.1 U	13 U	19 U	1.9 U	R	0.16 U	R
Methoxychlor	41 U	16 U	21 U	130 U	190 U	19 U	R	1.6 U	R

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-03-02-FW	SD-03-02-ME	SD-03-03-FW	SD-04-01-FW	SD-04-02-FW	SD-04-02-ME	SD-04-03-FW	SD-04-03-ME	SD-05-01-FW
Metals (mg/Kg)									
Aluminum	6050	6720 J	2730	3190	5780	17700 J	12800	11500 J	4770
Antimony	1.3 J	1.7 J	0.55 UJ	1 J	0.93 UJ	11.1 J	2.6 J	1.8 J	0.44 J
Arsenic	39.6	86.5	7.1	16.5	37.6	1570	58.7	98.6	9.8
Barium	31.8	84.6	9	11.6	18.6	77.3	89.8	175	21.3
Beryllium	0.42	0.59 J	0.12 U	0.2 U	0.4	1.7 J	0.71	0.86 J	0.18
Cadmium	3.3	5.2	0.045 U	0.8	6.1	19.1	4.1	7.4	0.03 U
Calcium	3900	4410	1380	1560	1300	5900	3730	6310	1440
Chromium	79.7	200 J	9.6	27	59.5	3000 J	148	240 J	17.1
Cobalt	15.9	21.4 J	4.1	6.8	11.3	42.7 J	22	21.6 J	5.5
Copper	117	171	6.4	54.8	204	1080	208	323	21.7
Cyanide	1.5 U	NA	0.63 U	0.67 U	1.2 U	NA	1.6 U	NA	0.61 U
Iron	12300	21900 J	4450	7060	6650	86200 J	20400	31600 J	14200
Lead	128	345 J	17.8	75.7	166	425 J	465	487 J	103
Magnesium	1740	1790	1330	1200	1170	1400	3490	3470	2580
Manganese	294	503	70.6	85.4	51.9	803	247	1010	222
Mercury	0.26 J	0.71	0.04 UJ	0.06 J	0.77 J	13.6	0.96 J	1.7	0.04 UJ
Nickel	12.1	26.7 J	4.9	5.8	6.4	41.2 J	17.9	33.6 J	10.7
Potassium	630 J	604 J	530 J	257 UJ	369 UJ	476 J	974 J	1120 J	755 J
Selenium	2 U	4.2 J	0.68 U	1.2 UJ	1.4 UJ	1.8 J	2.7 U	2 J	0.46 U
Silver	0.54 U	0.69 J	0.38 UJ	0.38 U	0.58 U	0.59 J	0.64 U	0.91 J	0.23 U
Sodium	279	321	59.1 U	103	837	330	213	347	39.5 U
Thallium	1.3 U	0.43 UJ	0.8 U	0.88 U	1.4 U	0.44 UJ	1.6	0.43 UJ	0.85
Vanadium	19.9	49.2	7.9	13.5	12.3	63.8	40.6	55.7	13.7
Zinc	1330	1420 J	60.4	415	1930	4330 J	1290	1590 J	118
AVS-SEM (mg/Kg)									
Arsenic	NA	3.745 U	NA	NA	NA	6.741 J	NA	5.992 J	NA
Cadmium	4.4	8.96 UJ	0.24 U	2.1	7.5	8.96 UJ	6	6.72 UJ	0.28 J
Copper	62.3 U	3.175 UJ	3.7 U	54.5 U	200 J	3.175 UJ	40.5 U	3.175 UJ	11.9 U
Lead	117	350.168 J	11.8	167	163	406.112 J	466	331.52 J	36.3
Mercury	0.01 U	10.03 U	0.003 U	0.01 U	0.01 U	10.03 U	0.01 U	10.03 U	0.01 U
Nickel	7.7 U	57.5162 J	7.2 U	48 U	101 J	14.0856 J	99.3 J	19.9546 J	2.2 U
SEM/AVS Ratio	0.38	0.32	0.61	0.3	0.32	0.99	0.55	0.91	5.5
Sulfide	2003.04 J	2824.8	55.854 J	1206.96 J	4076.7 J	754.35	1383.51 J	600.27	7.704 J
Zinc	1500	1647.5 J	65.9	689	2310	1383.9 J	1290	995.09 J	74.6
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	195000 J	NA	21500	54400	193000 J	93400	255000 J	3840
Total Organic Carbon	55000	NA	602	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-05-02-FW	SD-05-03-FW	SD-05-03-ME	SD-06-01-FW	SD-06-02-FW	SD-06-03-FW	SD-06-03-ME	SD-06-03-TR	SD-07-01-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	12 UJ	20 UJ	28 U	22 U	20 U	29 U	96 U	26 U	13 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	26 U	NA
1,1-Dichloroethane	12 UJ	20 UJ	28 U	22 U	20 U	29 U	96 U	R	13 U
1,2-Dichloroethene(total)	12 UJ	9 J	NA	22 U	20 U	29 U	NA	NA	13 U
2-Butanone	12 UJ	39 J	NA	62	45	45	NA	R	10.25 J
Acetone	12 UJ	180 UJ	NA	280 UJ	200 UJ	170 UJ	NA	190 U	29 UJ
Benzene	12 UJ	20 UJ	6 J	22 U	20 U	29 U	17 J	R	13 U
Carbon Disulfide	12 UJ	20 UJ	NA	22 U	20 U	29 U	NA	R	13 U
cis-1,2-Dichloroethene	NA	NA	7 J	NA	NA	NA	38 J	R	NA
Ethylbenzene	12 UJ	20 UJ	5 J	22 U	20 UJ	29 UJ	9 J	R	13 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	35 J	NA
Methylene Chloride	12 UJ	20 UJ	28 U	33 U	20 U	56 U	96 U	29 UJ	14 U
Naphthalene	NA	NA	17 J	NA	NA	NA	70 J	NA	NA
Tetrachloroethene	12 UJ	20 UJ	28 U	22 U	20 UJ	29 UJ	96 U	R	13 U
Toluene	12 UJ	20 UJ	NA	22 U	20 UJ	29 UJ	NA	R	13 U
trans-1,2-Dichloroethene	NA	NA	28 U	NA	NA	NA	96 U	R	NA
Trichloroethene	12 UJ	20 UJ	6 J	22 U	20 U	29 U	52 J	R	13 U
Vinyl Chloride	12 UJ	20 UJ	28 U	22 U	20 U	29 U	96 U	R	13 U
Xylene, m/p-	NA	NA	10 J	NA	NA	NA	25 J	R	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	410 U	650 UJ	55.5 J	730 U	650 U	2900 U	40 J	630 U	430 U
Acenaphthene	410 U	100 J	102 J	730 U	650 U	2900 U	130 J	630 U	430 U
Acenaphthylene	410 U	250 J	36 J	130 J	110 J	2900 U	120	630 U	430 U
Anthracene	410 U	520 J	245	260 J	210 J	1300 J	550	64 J	131 J
Benzo(a)anthracene	130 J	2300 J	1015	790	640 J	3000	4200 J	310 J	415 J
Benzo(a)pyrene	130 J	2500 J	735	980	800	2300 J	5100 J	370 J	490 J
Benzo(b)fluoranthene	130 J	3000 J	735	730 U	960	2400 J	6100 J	610 J	555
Benzo(g,h,i)perylene	410 U	1200 J	305	560 J	460 J	1700 J	1900 J	150 J	325 J
Benzo(k)fluoranthene	120 J	1900 J	446.75 J	730 U	690	2400 J	1300 J	160 J	480 J
bis(2-Ethylhexyl)phthalate	410 U	650 UJ	NA	2800 U	3000	3300 U	NA	430 J	790 U
Butylbenzylphthalate	410 U	650 UJ	NA	730 U	650 U	2900 U	NA	630 U	430 U
Carbazole	410 U	220 J	NA	98 J	650 UJ	2900 UJ	NA	630 U	251 J
Chrysene	160 J	2900 J	935	1200	1100	3800	6900 J	450 J	670 J
Dibenz(a,h)anthracene	410 U	650 UJ	112.5	730 U	650 U	2900 U	720 J	630 U	430 U
Dibenzofuran	410 U	87 J	NA	730 U	650 U	2900 U	NA	630 U	430 U
Diethylphthalate	410 U	650 UJ	NA	730 U	650 U	2900 U	NA	630 U	430 U
Di-n-octylphthalate	410 U	650 UJ	NA	730 U	650 U	2900 U	NA	630 U	430 U
Fluoranthene	260 J	4400 J	2250	1800	1600 J	11000	9900	780	1250 J
Fluorene	410 U	230 J	225 J	110 J	650 U	430 J	400	630 U	430 U
Indeno(1,2,3-cd)pyrene	64 J	1200 J	355	500 J	390 J	1400 J	2400 J	150 J	290 J
Naphthalene	410 U	83 J	34.5 J	730 U	650 U	2900 U	53 J	630 U	430 U
N-nitrosodiphenylamine	410 U	650 UJ	NA	730 U	650 UJ	2900 U	NA	630 U	430 U
Phenanthrene	110 J	2200 J	1750 J	830	660 J	6300	5200	340 J	400 J
Pyrene	250 J	4100 J	2100	1600	1100	6100	7500	600 J	840 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	21 U	R	180	94 J	92 J	87 J	79	2.2	21 U
4,4'-DDE	21 U	R	35.5	91 J	92 J	100 J	71	2.6	21 U
4,4'-DDT	21 U	R	9.25 J	32 J	R	49 U	15 J	1.3 U	21 U
Aldrin	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
alpha-BHC	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
alpha-Chlordane	11 U	R	13.05 J	31 J	32 J	27 J	80	0.63 U	9.25 J
Aroclor 1248	210 U	R	120 J	370 U	R	490 U	120 J	13 U	210 U
Aroclor 1254	210 U	R	3.3 U	370 U	R	490 U	3.2 U	13 U	210 U
Aroclor 1260	210 U	R	74.5	370 U	R	490 U	82	13 U	210 U
beta-BHC	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
delta-BHC	11 U	R	3.65 J	19 U	R	25 U	25 J	0.63 U	11 U
Dieldrin	21 U	R	2.925 J	37 U	R	49 U	5 J	1.3 U	21 U
Endosulfan I	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
Endosulfan II	21 U	R	3.3 U	37 U	R	49 U	3.2 U	1.3 U	21 U
Endosulfan sulfate	21 U	R	3.3 U	37 U	R	49 U	3.2 U	1.3 U	21 U
Endrin	21 U	R	3.3 U	37 U	R	49 U	17 J	1.3 U	21 U
Endrin aldehyde	21 U	R	3.3 U	37 U	R	49 U	3.2 U	1.3 U	21 U
Endrin ketone	21 U	R	3.3 U	37 U	R	49 U	3.2 U	1.3 U	21 U
gamma-BHC (Lindane)	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
gamma-Chlordane	11 U	R	11.65 J	19 U	R	25 U	48 J	0.63 U	11 U
Heptachlor	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
Heptachlor Epoxide	11 U	R	1.7 U	19 U	R	25 U	1.6 U	0.63 U	11 U
Methoxychlor	110 U	R	17 U	190 U	R	250 U	16 U	6.3 U	110 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-05-02-FW	SD-05-03-FW	SD-05-03-ME	SD-06-01-FW	SD-06-02-FW	SD-06-03-FW	SD-06-03-ME	SD-06-03-TR	SD-07-01-FW
Metals (mg/Kg)									
Aluminum	6470	4470	4580 J	5560	4780	10300	14300	8800	5160
Antimony	1 J	1.8 J	1.37 J	1.8 J	1.2 J	2.8 J	2.5 J	2.7	0.935 J
Arsenic	5.1	24.8	9.85	25.1	21.8	58.1	135	67.3	18.35
Barium	43.2	24.4	39.3	30.2	28.9	66.7	130	82.6	21.35
Beryllium	0.28	0.3	0.295 J	0.32	0.28	0.58	1	0.6 J	.24
Cadmium	0.043 U	1.6	.62	1.7	1.5	4	7.7	5.5	.645
Calcium	1850	1480	1340	2080	1740	4020	5510	3600	1630
Chromium	15	149	68.45 J	196	172	442	403	197	67.7
Cobalt	7.4	16	5 J	9.3	6	13.7	20.9	13.7 J	7.7
Copper	10.9	80.3	43.15	101	83.9	198	389	219	49.4
Cyanide	0.6 U	0.98 U	NA	1 U	2.2	1.5 U	NA	NA	0.57 U
Iron	13400	7990	9060 J	10000	9930	19700	40600	20900	9725
Lead	39.3	145	655 J	193	361	394	455	354	80.7
Magnesium	4440	1400	1845	1640	1610	2970	4260	2930	2540
Manganese	952	125	97.45	428	296	326	1630	628	108.55
Mercury	0.05 UJ	1.2 J	.225	0.49 J	0.4 J	0.79 J	2.6	0.69 J	0.28 J
Nickel	8.6	6.8	11 J	13.8	10.7	21	32.2	19.5	14.55
Potassium	634 J	487 UJ	535.5 J	699 J	551 J	989 J	1380	837 J	702 J
Selenium	0.64 U	2.1 U	0.53 U	1.4 UJ	0.92 UJ	2.1 U	3.4 J	0.99 U	0.52 UJ
Silver	0.32 U	0.54 U	0.455 J	0.51 U	0.39 UJ	0.57 UJ	0.18 J	0.99 U	0.2 U
Sodium	55.9 U	216	94.15	684	560	755	617 U	214	30.85 J
Thallium	0.97	1.3 U	0.04 UJ	1.2 U	0.89 U	1.2	0.77 U	1.1 U	.815
Vanadium	19.4	12.5	23.55	24.5	25.9	47.6	60.2	29.9	17.2
Zinc	111	571	135 J	420	384	1080	1630	971 J	297.5
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	3.745 U	NA	NA	NA	12.733 J	NA	NA
Cadmium	0.21 J	4.9	5.6 U	3.1	2.9	5.3	6.72	4.8608	1.1
Copper	13.3 U	195	15.39875 J	158 J	166 J	148 J	5.08	155.2829	25.6 U
Lead	20.8	334	202.02 J	248	455	417	319.088	268.65552	74.65
Mercury	0.01 U	0.01 UJ	10.03 U	0.01 U	0.01 U	0.01 U	R	0.1003 J	0.004 U
Nickel	34.1 U	49.8 U	4.6952 J	120 J	96.1 J	98.8 J	22.8891 J	11.714524	5.6 U
SEM/AVS Ratio	3.6	0.56	0.215	0.23	0.061	0.054	2.44	21.8	0.22
Sulfide	12.519 J	1527.96 J	642	2125.02 J	8602.8 J	13321.5 J	174.624	21.186 J	741.51 J
Zinc	84.8	1460	201.654 J	606	653	1070	738.08 J	680.2254 J	304
TOC/TCO (mg/Kg)									
Total Combustible Organics	1840	56000	59100 J	46700	41600	69900	197000 J	NA	15150
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	100000	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-02-FW	SD-07-02-ME	SD-07-03-FW	SD-07-04-FW	SD-07-05-FW	SD-07-05-ME	SD-07-06-FW	SD-07-07-FW	SD-07-08-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	24 U	74 UJ	13 U	27 U	R	79 UJ	26 U	28 U	16 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	24 U	74 UJ	13 U	27 U	R	79 UJ	26 U	28 U	16 U
1,2-Dichloroethene(total)	24 U	NA	13 U	27 U	R	NA	26 U	28 U	16 U
2-Butanone	24 U	NA	13 U	89	47 J	NA	26 U	28 U	16 U
Acetone	44 UJ	NA	21 UJ	280 UJ	R	NA	140 UJ	100 UJ	62 UJ
Benzene	24 U	10 UJ	13 U	27 U	R	11 UJ	26 U	28 U	16 U
Carbon Disulfide	24 U	NA	13 U	27 U	R	NA	26 U	28 U	16 U
cis-1,2-Dichloroethene	NA	20 J	NA	NA	NA	18 J	NA	NA	NA
Ethylbenzene	24 U	5 J	13 U	27 U	R	11 UJ	26 U	28 U	16 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	44 U	74 UJ	30 U	27 UJ	R	79 UJ	180 U	150 U	57 U
Naphthalene	NA	74 UJ	NA	NA	NA	79 UJ	NA	NA	NA
Tetrachloroethene	24 U	74 UJ	13 U	27 U	R	79 UJ	26 U	28 U	16 U
Toluene	24 U	NA	13 U	27 U	R	NA	26 U	28 U	16 U
trans-1,2-Dichloroethene	NA	74 UJ	NA	NA	NA	79 UJ	NA	NA	NA
Trichloroethene	24 U	16 J	13 U	27 U	R	24 J	26 U	28 U	16 U
Vinyl Chloride	24 U	74 UJ	13 U	27 U	R	79 UJ	26 U	28 U	16 U
Xylene, m/p-	NA	25 UJ	NA	NA	NA	26 UJ	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	1600 U	45 J	120 J	110 J	R	44 J	1700 U	920 U	540 U
Acenaphthene	200 J	220 J	320 J	240 J	340 J	170 J	270 J	110 J	540 U
Acenaphthylene	1600 U	140	67 J	320 J	R	130	210 J	920 U	96 J
Anthracene	450 J	740	550	470 J	950 J	880	890 J	270 J	170 J
Benzo(a)anthracene	2200	6000	1200	2800	6400 J	5200	5300	2400	790
Benzo(a)pyrene	2300	6000	800	3200 J	6300 J	5700	4600	2000	890
Benzo(b)fluoranthene	4400	8800 J	1400	5800 J	12000 J	7800 J	9400	4300	1900
Benzo(g,h,i)perylene	2000	3300	270 J	890 UJ	2300 J	3400	1600 J	780 J	580
Benzo(k)fluoranthene	4800	4100 J	1600	5300 J	14000 J	1800 J	10000	4700	1900
bis(2-Ethylhexyl)phthalate	6000 J	NA	390 J	6500 J	13000 J	NA	8300	3500	1200 J
Butylbenzylphthalate	340 J	NA	420 U	280 J	620 J	NA	480 J	160 J	540 UJ
Carbazole	290 J	NA	90 J	290 J	580 J	NA	640 J	210 J	83 J
Chrysene	3000	6600	980	4400	9800 J	6000	6800	3000	1100
Dibenz(a,h)anthracene	400 J	1200 J	82 J	890 UJ	480 J	1400 J	330 J	160 J	120 J
Dibenzofuran	1600 U	NA	140 J	140 J	R	NA	190 J	920 U	540 U
Diethylphthalate	1600 U	NA	420 U	240 J	R	NA	1700 U	920 U	540 U
Di-n-octylphthalate	1600 U	NA	420 U	890 UJ	430 J	NA	290 J	140 J	540 U
Fluoranthene	4200	14000	2300	6200	15000 J	14000	12000	5300	1000
Fluorene	360 J	640	430	330 J	530 J	500	390 J	160 J	100 J
Indeno(1,2,3-cd)pyrene	1700	4200	220 J	890 UJ	2600 J	4200	1800	900 J	500 J
Naphthalene	1600 U	61 J	52 J	86 J	NA	57 J	1700 U	920 U	540 U
N-nitrosodiphenylamine	1600 U	NA	420 U	890 U	R	NA	1700 U	920 U	540 U
Phenanthrene	2700	8500	1700	2700	4900 J	4800	5400	1300	800
Pyrene	7700	9500	1800	4500	12000 J	9800	9000 J	4100	1700 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	42	47	23 J	64 J	48 J	39 J	34	18	32
4,4'-DDE	42	19 J	12 J	37 J	55 J	41	32	20	19
4,4'-DDT	32	21 J	3.8 J	24 J	41 J	18 J	11	15	9.1
Aldrin	4.1 U	1.6 U	0.5 J	4.8 J	R	1.6 U	5	2.8 J	0.24 J
alpha-BHC	2.7 J	1.6 U	2.2 U	0.45 J	2.5 J	1.6 U	4.4 U	0.31 J	0.46 J
alpha-Chlordane	39	49 J	27 J	43 J	45 J	64	32	19	11
Aroclor 1248	80 U	37 J	42 U	89 U	R	29 J	85 U	91 U	54 U
Aroclor 1254	80 U	3.3 U	42 U	89 U	R	3.2 U	85 U	91 U	54 U
Aroclor 1260	80 U	95	42 U	89 U	R	74	85 U	91 U	54 U
beta-BHC	4.1 U	1.6 U	1.5 J	4.6 U	3.9 J	1.6 U	5.4	6.6	4.1
delta-BHC	4.2	1.6 U	4.5 J	4.6 U	1.8 J	24 J	0.33 J	8.8	1.2 J
Dieldrin	3.9 J	4.1 J	0.59 J	1.8 J	5.7 J	3.2 U	7 J	2 J	0.94 J
Endosulfan I	4.1 U	1.6 U	2.2 U	4.6 U	R	1.6 U	4.4 U	4.7 U	2.8 U
Endosulfan II	5.2 J	3.3 U	5.4 J	8.9 U	3.8 J	3.2 U	2.2 J	1.3 J	2.2 J
Endosulfan sulfate	8 UJ	3.3 U	4.2 UJ	3.9 J	2.1 J	3.2 U	8.5 UJ	9.1 UJ	5.4 UJ
Endrin	8 U	8.6 J	3.7 J	8.9 U	R	17 J	8.5 U	0.6 J	5.4 U
Endrin aldehyde	5.8 J	27 J	0.98 J	8.9 U	R	3.2 U	1.9 J	0.94 J	2.4 J
Endrin ketone	2.3 J	3.3 U	4.2 U	8.9 U	R	3.2 U	8.5 U	9.1 U	2.7 J
gamma-BHC (Lindane)	1.4 J	1.6 U	2.2 U	4.6 UJ	R	1.6 U	1.4 J	4.7 U	2.8 U
gamma-Chlordane	21	41	21 J	53 J	36 J	38 J	26	14	9.6
Heptachlor	0.18 J	1.6 U	0.82 J	4.6 UJ	0.29 J	1.6 U	1.6 J	0.77 J	2.8 UJ
Heptachlor Epoxide	3.3 J	1.6 U	2.4 J	4.6 U	3.7 J	1.6 U	1.9 J	1.6 J	0.45 J
Methoxychlor	6.3 J	16 U	22 U	46 UJ	R	16 U	8.8 J	47 U	28 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-02-FW	SD-07-02-ME	SD-07-03-FW	SD-07-04-FW	SD-07-05-FW	SD-07-05-ME	SD-07-06-FW	SD-07-07-FW	SD-07-08-FW
Metals (mg/Kg)									
Aluminum	5670	13200	5610 J	10700	9880 J	14700	11100 J	5510 J	10700 J
Antimony	2.1 J	2.6 J	0.72	1.2 J	2.3	2.8 J	2.6	1.9	1.9
Arsenic	34.6	111	10.3 J	75.5	61.5 J	98.3	84.1 J	27.1 J	30 J
Barium	42.9	110	21.8	87.3	73.4	118	83.1	32.4	48.5
Beryllium	0.32 U	0.95	0.23	0.68999	0.56	1	0.66	0.3 U	0.38
Cadmium	1.8	6.3	0.46 U	5	5.7 U	5.8	6.1 U	2 UJ	2.2 U
Calcium	1910	5310	2370	4260	3950	6630	4420	2650	2650
Chromium	116	291	31.9 J	207 J	164 J	277	209 J	79.5 J	174 J
Cobalt	6.7	19.2	6.1	16.4	13.4	21.5	15.6	8	13.8
Copper	115	306	23.4 J	209	162 J	304	204 J	69.7 J	104 J
Cyanide	1.3 U	NA	0.72 U	1.2 U	1.8	NA	1.4	1.1 U	0.54 U
Iron	11500	33800	9490 J	22300	20900 J	35400	26800 J	11800 J	19500 J
Lead	257	382	41.2	480	271	406	329	116	167
Magnesium	1790	4180	2550 J	3690	3480 J	5330	3730 J	2500 J	5860 J
Manganese	192	517	134 J	595 J	397 J	495	516 J	148 J	201 J
Mercury	2.2 J	2.3	0.11 UJ	0.93999 J	0.91 J	2	0.36 J	0.61 J	0.99 J
Nickel	12.2	35.2	8.2	28.3	22.2	37.5	26.9	13.8	24.4
Potassium	610 UJ	1310	574 J	1100	1210 J	1620	1180 J	862 J	1900 J
Selenium	2 UJ	2.2 J	0.49 U	1.9	1.6 U	2.2 J	3.2 U	1.9 UJ	0.7 UJ
Silver	0.67 U	0.86 J	0.24 U	1.1	0.79 U	0.91 J	0.77 U	0.59 U	0.34 U
Sodium	115 U	416 U	52.2 UJ	342	257 U	519 U	342 U	193 U	185 U
Thallium	1.6 U	0.81 U	0.98	1.5	2.8	0.44 U	3.5	1.6	2.1
Vanadium	23.2	56.7	19.5	44.8	39.1	62.6	46.2	21.4	37.8
Zinc	558	1500	106 J	1200	1070 J	1450	1310 J	455 J	506 J
AVS-SEM (mg/Kg)									
Arsenic	NA	14.231 J	NA	NA	NA	7.49 J	NA	NA	NA
Cadmium	6 J	5.6 U	0.42 UJ	5.1	8 J	5.6	5	1.8 U	1.6 U
Copper	212	12.065	18	175 J	262	3.175 U	173	44.9	78.7
Lead	652	302.512	56.6	433 J	496	292.152	375	153	174
Mercury	0.01 U	R	0.003 U	0.01 U	0.01 U	R	0.01 U	0.01 U	0.004 U
Nickel	38.7 J	27.5843 J	2.9 U	82.9 U	89.2 J	17.607 J	50.6 J	68.1 J	12.7 J
SEM/AVS Ratio	0.56	0.84	0.18	0.27	0.083	0.38	4.0	0.11	0.19
Sulfide	1630.68 J	654.84	391.62 J	2840.85	13482 J	1592.16	208.65 J	3020.61 J	1653.15 J
Zinc	1400	995.09 J	111	1220 J	1740	1126.89 J	1330	520	482
TOC/TCO (mg/Kg)									
Total Combustible Organics	93000	194000 J	13800	83600	88700	210000 J	70100	52700	25500
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-09-FW	SD-07-10-FW	SD-07-10-ME	SD-08-01-FW	SD-08-02-FW	SD-08-03-FW	SD-09-01-FW	SD-09-02-FW	SD-09-03-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	28 U	26 U	101 UJ	13 U	15 U	12 U	16 U	16 U	12 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	28 U	26 U	101 UJ	13 U	15 U	12 U	16 U	16 U	12 U
1,2-Dichloroethene(total)	28 U	26 U	NA	13 U	15 U	12 U	16 U	16 U	12 U
2-Butanone	28 U	26 U	NA	13 U	15 U	12 U	16 U	16 U	12 U
Acetone	87 UJ	68 UJ	NA	24 UJ	19 UJ	12 UJ	17 UJ	16 UJ	12 UJ
Benzene	28 U	26 U	13 UJ	13 U	15 U	12 U	16 U	16 U	12 U
Carbon Disulfide	28 U	26 U	NA	13 U	15 U	12 U	16 U	16 U	12 U
cis-1,2-Dichloroethene	NA	NA	24 J	NA	NA	NA	NA	NA	NA
Ethylbenzene	28 U	26 U	13 UJ	13 U	15 U	12 U	16 U	16 U	12 U
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	52 U	53 U	101 UJ	39 U	29 U	22 U	23 U	24 U	15 U
Naphthalene	NA	NA	101 UJ	NA	NA	NA	NA	NA	NA
Tetrachloroethene	28 U	26 U	101 UJ	13 U	15 U	12 U	16 U	16 U	12 U
Toluene	28 U	26 U	NA	13 U	15 U	12 U	16 U	16 U	12 U
trans-1,2-Dichloroethene	NA	NA	101 UJ	NA	NA	NA	NA	NA	NA
Trichloroethene	28 U	26 U	35 J	13 U	15 U	12 U	16 U	16 U	12 U
Vinyl Chloride	28 U	26 U	101 UJ	13 U	15 U	12 U	16 U	16 U	12 U
Xylene, m/p-	NA	NA	34 UJ	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	2700 U	130 J	59 J	420 U	490 U	400 U	520 U	520 U	410 U
Acenaphthene	390 J	130 J	230 J	420 U	490 U	400 U	520 U	520 U	410 U
Acenaphthylene	2700 U	480 J	140	81 J	120 J	400 U	520 U	520 U	410 U
Anthracene	1100 J	370 J	890	56 J	120 J	120 J	520 U	520 U	410 U
Benzo(a)anthracene	6700	2900	9600	290 J	680	480	120 J	520 U	130 J
Benzo(a)pyrene	5600	2700	10000	450	940	490	68 J	520 U	100 J
Benzo(b)fluoranthene	11000	5200	16000 J	950	1900	1000	220 J	520 U	200 J
Benzo(g,h,i)perylene	1900 J	910	5300	280 J	700	260 J	520 U	520 U	44 J
Benzo(k)fluoranthene	12000	5800	2300 J	960	2000	1100	200 J	520 U	150 J
bis(2-Ethylhexyl)phthalate	7800	2100	NA	84 J	150 J	260 J	95 J	520 U	64 J
Butylbenzylphthalate	430 J	870 U	NA	420 UJ	490 UJ	400 UJ	520 U	520 U	410 U
Carbazole	680 J	270 J	NA	420 U	110 J	63 J	520 U	520 U	410 U
Chrysene	8700	3900	10000	450	1000	580	120 J	520 U	120 J
Dibenz(a,h)anthracene	440 J	180 J	2000	60 J	160 J	60 J	520 U	520 U	410 U
Dibenzofuran	2700 U	96 J	NA	420 U	56 J	400 U	520 U	520 U	410 U
Diethylphthalate	2700 U	870 U	NA	420 U	490 U	400 U	520 U	520 U	410 U
Di-n-octylphthalate	2700 U	870 U	NA	420 U	490 U	400 U	520 U	520 U	410 U
Fluoranthene	15000	5600	23000	520	1400	770	250 J	42 J	210 J
Fluorene	600 J	280 J	550	50 J	100 J	68 J	520 U	520 U	45 J
Indeno(1,2,3-cd)pyrene	1900 J	710 J	6900	280 J	680	240 J	520 U	520 U	62 J
Naphthalene	2700 U	130 J	72 J	54 J	200 J	41 J	520 U	520 U	410 U
N-nitrosodiphenylamine	2700 U	870 U	NA	58 J	490 U	400 U	520 U	520 U	410 U
Phenanthrene	6200	2400	12000	280 J	610	540	120 J	520 U	140 J
Pyrene	11000	5100	15000	640 J	2000	810 J	230 J	52 J	210 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	33	76	36	9.8	6.7	3.3 J	19	28	17
4,4'-DDE	31	69	33	3.5 J	4.1 J	4.2 J	14	27	9.8
4,4'-DDT	45	47	14 J	3 J	0.87 J	R	3.7 J	6.4	2.5 J
Aldrin	5.7	4.5 U	1.6 U	2.1 U	2.5 U	R	0.26 J	2 J	0.25 J
alpha-BHC	1.3 J	4.5 U	1.6 U	2.1 U	0.26 J	R	2.7 U	0.11 J	2.1 U
alpha-Chlordane	29	14	80	2.1 U	2.5 U	1.5 J	0.84 J	2.7 U	0.39 J
Aroclor 1248	92 U	87 U	67 J	41 U	49 U	R	52 U	52 U	41 U
Aroclor 1254	92 U	87 U	3.2 U	41 U	49 U	R	52 U	52 U	41 U
Aroclor 1260	92 U	87 U	50	41 U	49 U	R	52 U	52 U	41 U
beta-BHC	5.6	2.5 J	1.6 U	2.1 U	2.5 U	R	0.29 J	2.7 U	0.1 J
delta-BHC	4.7 U	4.5 U	1.6 U	2.1 U	2.5 U	0.32 J	2.7 U	2.7 U	2.1 U
Dieldrin	2.5 J	8.7 U	3.2 U	4.1 U	0.19 J	R	4.3 J	7	2.6 J
Endosulfan I	4.7 U	4.5 U	1.6 U	2.1 U	2.5 U	R	2.7 U	0.11 J	2.1 U
Endosulfan II	8.4 J	8.7 UJ	3.2 U	0.29 J	1.1 J	R	5.2 U	5.2 U	4.1 U
Endosulfan sulfate	9.2 UJ	8.7 UJ	3.2 U	4.1 UJ	4.9 UJ	R	5.2 U	5.2 U	4.1 U
Endrin	1.6 J	4.2 J	16 J	4.1 U	2.3 J	R	0.22 J	5.2 U	0.21 J
Endrin aldehyde	4.9 J	8.7 UJ	3.2 U	4.1 UJ	0.47 J	R	5.2 U	0.9 J	4.1 U
Endrin ketone	1.8 J	8.7 U	3.2 U	4.1 U	2.9 J	R	5.2 U	5.2 U	4.1 U
gamma-BHC (Lindane)	4.7 U	4.5 U	1.6 U	2.1 U	2.5 U	R	2.7 U	2.7 U	2.1 U
gamma-Chlordane	20	8.8	45 J	0.25 J	0.7 J	1.4 J	0.84 J	0.3 J	0.23 J
Heptachlor	4.7 UJ	0.26 J	1.6 U	2.1 UJ	0.13 J	R	0.31 J	0.067 J	2.1 UJ
Heptachlor Epoxide	2.4 J	1 J	1.6 U	0.63 J	1.1 J	0.45 J	2.7 U	2.7 U	2.1 U
Methoxychlor	47 U	12 J	16 U	21 U	25 U	R	27 U	27 U	21 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-07-09-FW	SD-07-10-FW	SD-07-10-ME	SD-08-01-FW	SD-08-02-FW	SD-08-03-FW	SD-09-01-FW	SD-09-02-FW	SD-09-03-FW
Metals (mg/Kg)									
Aluminum	4890 J	22600 J	12500	4590 J	5950 J	5830 J	4020 J	3840 J	5470 J
Antimony	1.4	3.1	2.4 J	0.75	1.6	0.74	1	0.99	0.93999
Arsenic	32.7 J	129 J	87.4	10.8 J	28.9 J	16.5 J	36.6 J	48.5 J	22.2 J
Barium	36.9	107	89.8	15.7	21.2	19.8	15.2	25.5	19.5
Beryllium	0.29 U	1.3	0.86	0.19 U	0.32	0.25	0.22	0.26 U	0.24
Cadmium	2.5 U	10.3	4.5	0.6 U	1.8 U	1.3 U	1.5 U	0.81 U	0.76 UJ
Calcium	2220	6080	5840	1630	2330	1910	1420	2590	1430
Chromium	91.5 J	442 J	238	17.8 J	119 J	26.4 J	91.8 J	27.7 J	43.9 J
Cobalt	7.9	32.6	18.2	5.2	10.6	6.1	5.2	6	6.6
Copper	84.9 J	380 J	261	28.3 J	133 J	59.7 J	102 J	21 J	46.1 J
Cyanide	1.2 U	1.4 U	NA	0.6 U	0.61 U	0.61 U	0.55 U	0.78 U	0.59 U
Iron	11000 J	27700 J	29100	7110 J	23200 J	9400 J	6360 J	8730 J	10200 J
Lead	144	474	326	20	70.7	38.8	86.8	14.1	24
Magnesium	1620 J	4770 J	4420	1730 J	2110 J	2180 J	1310 J	1450 J	2400 J
Manganese	207 J	468 J	397	99.5 J	228 J	155 J	141 J	66.6 J	153 J
Mercury	0.77 J	5.7 J	1.6	0.11 J	1 J	0.26 J	0.19 J	0.21 J	0.37 J
Nickel	11.8	27.1	31.5	7	20.2	9.4	5.7	6.2	8.1
Potassium	609 J	1240 J	1320	469 J	464 J	476 J	506 J	509 J	814 J
Selenium	0.99 U	2.1 U	2.4 J	0.77 UJ	0.67 UJ	0.9 UJ	0.6 U	2.6 U	0.68 UJ
Silver	0.49 U	0.52 U	0.78 J	0.32 U	0.27 U	0.32 U	0.3 U	0.43 U	0.32 U
Sodium	215 U	404 U	483 U	80.2 U	116 U	157 U	119 U	172 U	137 U
Thallium	1.5	3.8	0.76 U	1.5	1.7	1.1	1.1	1 U	1.2
Vanadium	22.1	79.2	54.6	11.6	17.5	15.6	9.3	11.3	16.3
Zinc	535 J	2490 J	1190	171 J	539 J	340 J	236 J	62.4 J	103 J
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	12.733 J	NA	NA	NA	NA	NA	NA
Cadmium	3.9 U	0.37 UJ	7.84	3.8	0.79 U	1.6 U	0.9 U	0.13 UJ	0.23 UJ
Copper	84.9	74.6	3.175 U	128	62.9	117	49.2	19.2	39.1
Lead	280	35.5	346.024	294	48.2	65.9	36.8	17.8	21.8
Mercury	0.01 U	0.01 U	R	0.004 U	0.01	0.02	0.01	0.004 U	0.003 U
Nickel	16.8 J	156 J	14.6725 J	14 J	6.2 J	36.9 J	45.8 J	6.4 J	26.3 J
SEM/AVS Ratio	0.6	0.079	2.53	3.5	3.1	2.4	1.9	2.0	0.13
Sulfide	930.9 J	2686.77 J	167.562	158.574 J	92.769 J	145.734 J	82.818 J	20.223 J	561.75 J
Zinc	944	171	738.08 J	899	508	539	212	49.9	71.1
TOC/TCO (mg/Kg)									
Total Combustible Organics	82700	99000	218000 J	117 U	17900	7560	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	4230	46200	7320

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-04-FW	SD-09-05-FW	SD-09-06-FW	SD-09-07-FW	SD-09-08-FW	SD-09-09-FW	SD-09-10-FW	SD-10-01-FW	SD-10-01-ME
VOCs (ug/Kg)									
1,1,1-Trichloroethane	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	312 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	312 U
1,2-Dichloroethene(total)	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	NA
2-Butanone	12 U	12 U	12 U	14 U	12 U	12 U	13 UJ	R	NA
Acetone	21 UJ	16 UJ	14 UJ	14 UJ	12 UJ	12 UJ	19 UJ	R	NA
Benzene	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	42 UJ
Carbon Disulfide	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	64 J
Ethylbenzene	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	42 UJ
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	12 U	17 U	15 U	15 U	14 U	20 U	14 UJ	R	312 U
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	312 U
Tetrachloroethene	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	312 U
Toluene	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	312 U
Trichloroethene	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	104 UJ
Vinyl Chloride	12 U	12 U	12 U	14 U	12 U	12 U	13 U	R	312 U
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	104 UJ
SVOCs (ug/Kg)									
2-Methylnaphthalene	410 U	390 UJ	220 J	470 U	390 U	390 U	440 U	R	33 J
Acenaphthene	410 U	390 UJ	520	470 U	390 U	390 U	440 U	R	29 J
Acenaphthylene	410 U	390 UJ	82 J	470 U	390 U	390 U	440 U	R	20 J
Anthracene	410 U	390 UJ	930	470 U	390 U	390 U	440 U	R	96.5 J
Benzo(a)anthracene	410 U	80 J	1000	130 J	40 J	100 J	57 J	R	580
Benzo(a)pyrene	410 U	70 J	1100	110 J	45 J	85 J	47 J	R	620
Benzo(b)fluoranthene	410 U	170 J	2300	270 J	76 J	160 J	100 J	350 J	965 J
Benzo(g,h,i)perylene	410 U	390 UJ	290 J	470 U	390 U	390 U	440 U	R	365
Benzo(k)fluoranthene	410 U	130 J	2100	260 J	69 J	140 J	100 J	350 J	450 J
bis(2-Ethylhexyl)phthalate	410 U	93 J	110 J	390 J	70 J	390 U	66 J	610 J	NA
Butylbenzylphthalate	410 U	390 UJ	400 U	470 UJ	390 U	390 U	440 U	R	NA
Carbazole	410 U	390 UJ	480	470 U	390 U	390 U	440 U	R	NA
Chrysene	410 U	94 J	1400	120 J	48 J	100 J	52 J	R	650
Dibenz(a,h)anthracene	410 U	390 UJ	80 J	470 U	390 U	390 U	440 U	R	125
Dibenzofuran	410 U	390 UJ	500	470 U	390 U	390 U	440 U	R	NA
Diethylphthalate	410 U	390 UJ	400 U	470 U	390 U	390 U	440 U	R	NA
Di-n-octylphthalate	410 U	390 UJ	400 U	470 U	390 U	390 U	440 U	R	NA
Fluoranthene	410 U	220 J	1800	260 J	87 J	210 J	100 J	230 J	1950 J
Fluorene	410 U	390 UJ	810	470 U	390 U	390 U	440 U	R	115 J
Indeno(1,2,3-cd)pyrene	410 U	390 UJ	370 J	470 U	21 J	47 J	440 U	R	405
Naphthalene	410 U	390 UJ	250 J	470 U	390 U	390 U	440 U	NA	71 J
N-nitrosodiphenylamine	410 U	390 UJ	400 U	470 U	390 U	390 U	440 U	560 J	NA
Phenanthrene	410 U	100 J	1900	140 J	64 J	69 J	62 J	R	690 J
Pyrene	410 U	160 J	2200	230 J	83 J	220 J	120 J	355 J	1650 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	0.46 J	5.4	2.3 J	83	1.8 J	0.93 J	4.4 U	140 J	179 J
4,4'-DDE	0.089 J	1.6 J	1.1 J	19	3.9 U	0.3 J	1 J	125 J	160 J
4,4'-DDT	0.29 J	1.6 J	1.4 J	19	1.1 J	0.69 J	3.1 J	2.6 J	3.5 J
Aldrin	2.1 U	0.49 J	0.28 J	0.39 J	0.19 J	0.12 J	2.3 U	R	18 J
alpha-BHC	2.1 U	2 U	2.1 U	0.46 J	2 U	2 U	2.3 U	R	1.7 U
alpha-Chlordane	2.1 U	0.46 J	0.28 J	1.9 J	0.48 J	2 U	0.55 J	13.5 J	29.5 J
Aroclor 1248	41 U	39 U	40 U	47 U	39 U	39 U	44 U	R	560 J
Aroclor 1254	41 U	39 U	40 U	47 U	39 U	39 U	44 U	R	3.3 U
Aroclor 1260	41 U	39 U	40 U	47 U	39 U	39 U	44 U	R	320 J
beta-BHC	2.1 U	2 U	0.23 J	0.92 J	0.17 J	2 U	2.3 U	R	1.7 U
delta-BHC	2.1 U	2 U	2.1 U	0.08 J	2 U	2 U	0.85 J	R	1.7 U
Dieldrin	0.41 J	0.4 J	1.8 J	6.2	1.1 J	0.59 J	0.83 J	5.1 J	14 J
Endosulfan I	2.1 U	2 U	2.1 U	0.51 J	2 U	2 U	2.3 U	R	1.7 U
Endosulfan II	4.1 U	0.34 J	0.24 J	4.7 U	3.9 U	3.9 U	4.4 U	R	3.3 U
Endosulfan sulfate	4.1 U	3.9 U	4 U	4.7 U	3.9 U	3.9 U	4.4 U	R	3.3 U
Endrin	4.1 U	3.9 U	0.11 J	1.4 J	0.11 J	0.1 J	4.4 U	R	5.8 J
Endrin aldehyde	4.1 U	3.9 U	4 U	4.7 U	3.9 U	3.9 U	4.4 U	R	11.7 J
Endrin ketone	4.1 U	3.9 U	4 U	4.7 U	3.9 U	3.9 U	4.4 U	R	3.3 U
gamma-BHC (Lindane)	2.1 U	2 U	2.1 U	2.4 U	2 U	2 U	2.3 U	R	1.7 U
gamma-Chlordane	2.1 U	0.28 J	0.15 J	2.4	2 U	2 U	0.36 J	18.5 J	20.5 J
Heptachlor	2.1 UJ	0.34 J	0.27 J	0.25 J	2 UJ	2 UJ	2.3 U	R	1.7 U
Heptachlor Epoxide	2.1 U	2 U	2.1 U	2.4 U	2 U	2 U	2.3 U	R	1.575 J
Methoxychlor	21 U	20 U	21 U	24 U	20 U	2 U	23 U	R	17 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-09-04-FW	SD-09-05-FW	SD-09-06-FW	SD-09-07-FW	SD-09-08-FW	SD-09-09-FW	SD-09-10-FW	SD-10-01-FW	SD-10-01-ME
Metals (mg/Kg)									
Aluminum	2330 J	3670 J	4790 J	2760 J	7270 J	4870	3450	24700 J	29250
Antimony	0.57 U	0.64	0.74	0.9	1.3	0.51 U	1.1	4.65 J	13.95 J
Arsenic	18.1 J	19.7 J	27.7 J	26.4 J	26.3 J	26.8 J	40.4 J	410 J	692.5
Barium	6	13.7	15.1	8.8	14	18.3	73.9	71.55 J	112.6
Beryllium	0.081 U	0.14 U	0.2	0.23	0.22	0.14	0.14	1.6 J	2.05
Cadmium	0.67 U	0.5 UJ	0.78 UJ	0.9 U	1 UJ	0.19	1.2 J	21.15 J	18.7
Calcium	569	848	1440	1110	1880	1610 J	1280 J	11250 J	9770
Chromium	9.3 J	44.3 J	47 J	75.4 J	52.8 J	22.1 J	32.1 J	1530 J	3435
Cobalt	4.4	4.3	6.2	2.7	6	4.7	13.3	21.35 J	40.3
Copper	4.2 J	50.5 J	45.4 J	73.5 J	64.1 J	23.5	36.8	1650 J	2315
Cyanide	0.53 U	0.55 U	0.49 U	0.52 U	0.56 U	R	R	R	NA
Iron	4910 J	6950 J	11700 J	6030 J	13900 J	9810	30600	31300 J	51650
Lead	2.4	16.7	23	37.2	32.4	21.9 J	43.6 J	484 J	881
Magnesium	1080 J	1690 J	2170 J	922 J	4560 J	2420	1700	1745 J	2270
Manganese	64.8 J	75.6 J	88 J	43.2 J	138 J	238 J	2640 J	611 J	665
Mercury	0.06 UJ	0.53 J	0.28 J	0.68 J	0.24 J	0.049 U	0.054 U	6.75 J	19.9
Nickel	5.9	5.9	10.5	6.3	11.3	12.5	7.7	38.7 J	45.75
Potassium	300 J	507 J	672 J	236 J	553 J	532	428	546 J	737
Selenium	0.72 U	0.45 U	0.45 U	0.61 UJ	0.64 U	0.63 U	0.62	6.65 J	9.3 J
Silver	0.36 U	0.22 U	0.22 U	0.22 U	0.32 U	0.32 U	0.3 U	R	0.395 J
Sodium	73.1 UJ	81 U	105 U	105 U	131 U	54.9 U	74 UJ	889 J	589 J
Thallium	0.84 U	0.68	0.83	0.52 U	1.4	0.74 U	2.4	R	1.7 U
Vanadium	6.5	9	11.9	7	19.3	10.1	12.7	56.55 J	76.95
Zinc	57.1 J	126 J	115 J	141 J	142 J	103 J	479 J	2295 J	4020
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	88.382 J
Cadmium	0.34 UJ	0.28 UJ	0.17 UJ	1.3 U	0.21 UJ	0.23 UJ	0.36 J	26.85 J	12.88
Copper	47.5	25.6	40.7	117	48.5	29.3	53.4	573	3.96875 J
Lead	27.1	13.4	23.5	59.8	26.6	11.4	55.7	694	363.636 J
Mercury	0.003 U	0.01	0.01	0.02	0.003 U	0.03	0.003 U	0.02 U	R
Nickel	6 J	3.3 U	2.7 J	30.9 J	84.9 J	2.8 U	120	113 U	34.33365 J
SEM/AVS Ratio	0.80	0.11	0.23	4.3	4.4	0	91	0.345	0.415
Sulfide	95.337 J	516.81 J	293.394 J	43.656 J	24.717 J	1.605 U	2.568	6853.35	2072.055
Zinc	90.7	82	84.8	205	69	72.4	269	3645	1617.845 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	117 U	3860	229500	465000 J
Total Organic Carbon	121 U	114 U	1050	10900	117 U	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-10-02-FW	SD-10-02-ME	SD-10-02-TR	SD-10-03-FW	SD-11-01-FW	SD-11-01-ME	SD-11-02-FW	SD-11-03-FW	SD-12-01-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	R	278 U	35 U	20 U	27 U	171 U	R	28 U	R
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	35 U	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	R	278 U	35 U	20 U	27 U	171 U	R	28 U	R
1,2-Dichloroethene(total)	R	NA	NA	20 U	27 U	NA	R	28 U	R
2-Butanone	R	NA	35 U	20 UJ	120 J	NA	200 J	28 UJ	R
Acetone	R	NA	250 U	98 UJ	430 UJ	NA	R	260 UJ	R
Benzene	R	21 J	35 U	20 U	27 U	23 UJ	R	28 U	R
Carbon Disulfide	R	NA	29 J	20 U	27 U	NA	R	28 U	R
cis-1,2-Dichloroethene	NA	93 UJ	35 U	NA	NA	170 J	NA	NA	NA
Ethylbenzene	R	37 UJ	35 UJ	20 U	27 U	23 UJ	R	28 U	R
Methyl Acetate	NA	NA	35 U	NA	NA	NA	NA	NA	NA
Methylene Chloride	R	278 U	35 U	21 UJ	27 UJ	171 U	R	42 UJ	R
Naphthalene	NA	278 U	NA	NA	NA	171 U	NA	NA	NA
Tetrachloroethene	R	278 U	35 UJ	20 U	27 U	171 U	R	28 U	R
Toluene	R	NA	35 UJ	20 U	27 U	NA	R	28 U	R
trans-1,2-Dichloroethene	NA	278 U	35 U	NA	NA	387	NA	NA	NA
Trichloroethene	R	60 J	35 U	20 U	27 U	103 UJ	R	28 U	R
Vinyl Chloride	R	278 U	35 U	20 U	27 U	255 J	R	28 U	R
Xylene, m/p-	NA	93 UJ	35 UJ	NA	NA	57 UJ	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	R	10 U	540 U	660 U	890 U	16 J	R	910 U	R
Acenaphthene	R	R	540 U	660 U	890 U	R	R	910 U	R
Acenaphthylene	R	13 J	540 U	660 U	890 U	9 J	R	910 U	R
Anthracene	R	49 J	540 U	660 U	890 U	54 J	R	910 U	R
Benzo(a)anthracene	R	210	540 U	660 U	890 U	410	310 J	120 J	270 J
Benzo(a)pyrene	R	250	540 U	660 U	890 U	520	220 J	910 U	300 J
Benzo(b)fluoranthene	550 J	290 J	540 U	660 U	120 J	780	870 J	350 J	790 J
Benzo(g,h,i)perylene	R	200	540 U	660 U	890 U	300	260 J	910 U	R
Benzo(k)fluoranthene	550 J	220 J	540 UJ	660 U	110 J	720	840 J	330 J	800 J
bis(2-Ethylhexyl)phthalate	730 J	NA	540 U	120 J	140 J	NA	8100 J	450 J	660 J
Butylbenzylphthalate	R	NA	540 U	660 U	890 UJ	NA	R	910 UJ	R
Carbazole	R	NA	540 U	660 U	890 U	NA	R	910 U	R
Chrysene	R	380	540 U	660 U	890 U	670	400 J	180 J	450 J
Dibenz(a,h)anthracene	R	69	540 U	660 U	890 U	99	R	910 U	R
Dibenzofuran	R	NA	540 U	660 U	890 U	NA	R	910 U	R
Diethylphthalate	R	NA	540 U	660 U	890 U	NA	R	910 U	R
Di-n-octylphthalate	R	NA	540 U	660 U	890 U	NA	R	910 U	R
Fluoranthene	410 J	570	540 U	85 J	890 U	1000	710 J	300 J	800 J
Fluorene	R	72 J	540 U	660 U	890 U	57 J	R	910 U	R
Indeno(1,2,3-cd)pyrene	R	190	540 U	660 U	890 U	360	270 J	910 U	160 J
Naphthalene	NA	26 J	540 U	660 U	890 U	32 J	NA	910 U	NA
N-nitrosodiphenylamine	450 J	NA	540 U	400 J	410 J	NA	540 J	910 U	R
Phenanthrene	R	210	540 U	660 U	890 U	260	230 J	120 J	240 J
Pyrene	570 J	470	540 U	99 J	100 J	950	640 J	230 J	770 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	100 J	17	4.2 U	6.6 U	8.9 U	45 J	R	9.2 U	R
4,4'-DDE	29 J	5.1	4.2 U	0.85 J	2.7 J	15 J	8.3 J	0.76 J	1.7 J
4,4'-DDT	2.3 J	0.35 U	4.2 U	0.93 J	0.66 J	1.9 J	1.4 J	0.5 J	0.53 J
Aldrin	R	0.17 U	2.1 U	3.4 U	4.6 U	0.16 UJ	R	0.59 J	R
alpha-BHC	R	0.17 U	2.1 U	3.4 U	4.6 U	0.16 UJ	R	4.7 U	R
alpha-Chlordane	7.2 J	1.5 J	2.1 U	0.92 J	4.6 U	8.1 J	2.7 J	0.62 J	1.6 J
Aroclor 1248	R	47 J	42 U	66 U	89 U	180 J	R	92 U	R
Aroclor 1254	R	3.5 U	42 U	66 U	89 U	3.3 U	R	92 U	R
Aroclor 1260	R	44	42 U	66 U	17 J	230	61 J	92 U	R
beta-BHC	R	0.17 U	2.1 U	3.4 U	4.6 U	0.16 UJ	R	4.7 U	1.7 J
delta-BHC	R	0.17 U	2.1 U	0.14 J	4.6 U	0.16 UJ	R	4.7 U	R
Dieldrin	2.7 J	0.35 U	4.2 U	0.55 J	8.9 U	1.4 J	R	9.2 U	1.3 J
Endosulfan I	R	0.17 U	2.1 U	3.4 U	4.6 U	0.44 J	R	4.7 U	R
Endosulfan II	R	0.35 U	4.2 U	6.6 U	8.9 U	0.51 J	R	9.2 U	0.69 J
Endosulfan sulfate	R	0.35 U	4.2 U	6.6 U	8.9 U	0.72 J	R	9.2 U	R
Endrin	R	0.61 J	4.2 U	6.6 U	8.9 U	0.69 J	R	9.2 U	1.8 J
Endrin aldehyde	R	1.7 J	4.2 U	6.6 U	8.9 U	1.7 J	R	9.2 U	R
Endrin ketone	R	0.35 U	4.2 UJ	6.6 U	8.9 U	0.33 UJ	R	9.2 U	R
gamma-BHC (Lindane)	R	0.17 U	2.1 U	3.4 U	4.6 U	0.16 UJ	R	4.7 U	R
gamma-Chlordane	7.4 J	0.25 J	2.1 U	0.43 J	0.34 J	5.6 J	2.7 J	0.51 J	1.4 J
Heptachlor	R	0.17 U	2.1 U	3.4 U	4.6 UJ	0.16 UJ	R	4.7 UJ	R
Heptachlor Epoxide	R	0.54 J	2.1 U	3.4 U	4.6 U	0.16 UJ	R	4.7 U	R
Methoxychlor	R	1.7 U	21 U	34 U	46 U	1.6 UJ	R	47 U	R

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-10-02-FW	SD-10-02-ME	SD-10-02-TR	SD-10-03-FW	SD-11-01-FW	SD-11-01-ME	SD-11-02-FW	SD-11-03-FW	SD-12-01-FW
Metals (mg/Kg)									
Aluminum	29300 J	24400	28600	7690	14800	12600 J	5090	10200	10300 J
Antimony	12.3 J	13.9 J	39.7	3.1	8.4	1.5 UJ	1.2	2.7	R
Arsenic	833 J	875	2180	187 J	874 J	121	268 J	473 J	101 J
Barium	41.4 J	53.4	102	32.4	30.5	149	24.6	62.9	42 J
Beryllium	1.7 J	1.7	1.7 J	0.48	1.1	0.97 J	0.38	0.52	R
Cadmium	8.6 J	12.4	13.9	5.9	8.7	9.5	3.4	3.3	1.8 J
Calcium	10100 J	8590	10400	5800 J	2680 J	5800	1870 J	5700 J	5900 J
Chromium	670 J	934	1570	114 J	791 J	303 J	900 J	317 J	151 J
Cobalt	14.2 J	16.5	28.6 J	11.2	14.5	25.3 J	8.1	19.8	26.1 J
Copper	2080 J	1870	2030	298	619	402	283	172	76.6 J
Cyanide	R	NA	NA	0.91 U	1.1 U	NA	0.97 U	2 U	R
Iron	27000 J	31900	46700	10800	49900	31700 J	23800	35800	19000 J
Lead	646 J	559	837	130 J	175 J	606 J	118 J	100 J	44.9 J
Magnesium	1490 J	1500	1880	2140	844	2980	561	1590	1550 J
Manganese	388 J	409	727	389 J	139 J	728	221 J	1630 J	385 J
Mercury	11.7 J	24.2	0.19 J	0.54	4.5	1.9	3.7	1.1	0.74 J
Nickel	20 J	18.4	26.2	13.3	11.2	32.8 J	9.3	13.9	12.6 J
Potassium	361 J	345 U	533 J	256	337	956 J	233	526	344 J
Selenium	8.8 J	11.5	1.9 J	2.7	4.4	2.5 J	3.1	2.4	3.9 J
Silver	R	0.57 J	1 U	0.57 U	0.63 U	0.92 J	0.63 U	0.85 U	R
Sodium	738 J	642 U	1300	282	430	421	211	486	436 J
Thallium	R	1.3 U	1.1 U	1.3 U	1.5 U	0.44 UJ	1.5 U	2 U	R
Vanadium	44.8 J	47.8	68.6	21.4	29.1	58.8	16.3	23.2	24.7 J
Zinc	1410 J	1570	2420 J	1430 J	2850 J	2260 J	830 J	1350 J	2240 J
AVS-SEM (mg/Kg)									
Arsenic	NA	339.297 J	NA	NA	NA	223.202 J	NA	NA	NA
Cadmium	11.4 J	5.6 U	10.0688	8.3	29.6	11.2 UJ	20.9 J	1.7	3.2
Copper	1150	38.735	938.1363	244	324	92.075 J	1270	74.8	73.5 J
Lead	906	387.464 J	566.25688	139	150 J	267.288 J	660	59 J	53.3 J
Mercury	0.02 U	R	1.2036 J	0.01 U	0.02 UJ	10.03 U	0.02 U	0.01 UJ	0.01 U
Nickel	193 U	13.4987 J	14.156028	109	26.5 U	25.8236 J	68.9 U	10.8 U	78.3 U
SEM/AVS Ratio	0.6	2.38	7.1	1.9	1.9	1.34	0.13	0.99	0.58
Sulfide	2799.12	165.315	191.637 J	763.98	3165.06	503.97	26964	468.66 J	2654.67
Zinc	1950	630.004 J	1616.3806 J	2570	11800	1173.02 J	5800	849	3050 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	262000	463000 J	NA	97300	36700	387000 J	49900	121000	173000
Total Organic Carbon	NA	NA	680000	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-12-01-ME	SD-12-02-FW	SD-12-03-FW	SD-12-03-ME	SD-12-03-TR	SD-13-01-FW	SD-13-01-ME	SD-13-01-TR	SD-13-02-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	309 U	R	22 U	124 U	89 UJ	R	104 UJ	59 J	R
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	R	NA	NA	22 U	NA
1,1-Dichloroethane	309 U	R	22 U	124 U	R	R	104 UJ	22 U	R
1,2-Dichloroethene(total)	NA	R	22 U	NA	NA	R	NA	NA	R
2-Butanone	NA	87 J	22 U	NA	R	190 J	NA	22 U	160 J
Acetone	NA	R	56 UJ	NA	370 J	R	NA	4300 J	630 J
Benzene	41 UJ	R	22 U	9 J	R	R	8 J	22 U	R
Carbon Disulfide	NA	R	22 U	NA	R	R	NA	22 U	R
cis-1,2-Dichloroethene	417 J	NA	NA	25 J	R	NA	35 UJ	22 U	NA
Ethylbenzene	41 UJ	R	22 U	16 UJ	R	R	9 J	22 UJ	R
Methyl Acetate	NA	NA	NA	NA	R	NA	NA	22 U	NA
Methylene Chloride	309 U	R	22 UJ	124 U	89 U	R	104 UJ	22 U	R
Naphthalene	309 U	NA	NA	124 U	NA	NA	104 UJ	NA	NA
Tetrachloroethene	309 U	R	22 U	124 U	R	R	108 UJ	22 UJ	R
Toluene	NA	R	22 U	NA	R	R	NA	22 UJ	R
trans-1,2-Dichloroethene	309 U	NA	NA	124 U	R	NA	104 UJ	22 U	NA
Trichloroethene	53 J	R	22 U	41 UJ	R	R	35 UJ	22 U	R
Vinyl Chloride	309 U	R	22 U	124 U	R	R	104 UJ	22 U	R
Xylene, m/p-	103 UJ	NA	NA	41 UJ	R	NA	35 UJ	22 UJ	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	13 J	R	730 U	25 J	390 U	R	73	280 U	R
Acenaphthene	R	R	730 U	R	390 U	R	89 J	280 U	R
Acenaphthylene	19 J	R	730 U	23 J	390 U	R	31 J	280 U	R
Anthracene	69 J	R	730 U	79	390 U	R	300	280 U	R
Benzo(a)anthracene	560 J	160 J	140 J	420	290 J	680 J	1700	110 J	510 J
Benzo(a)pyrene	1000 J	160 J	160 J	440	520 J	710 J	1700	150 J	700 J
Benzo(b)fluoranthene	1500 J	350 J	410 J	780 J	960	1700 J	1900 J	270 J	1400 J
Benzo(g,h,i)perylene	640 J	R	730 U	290	280 J	370 J	820	280 U	260 J
Benzo(k)fluoranthene	720 J	350 J	390 J	440 J	360 J	1600 J	850 J	280 UJ	1300 J
bis(2-Ethylhexyl)phthalate	NA	350 J	500 J	NA	260 J	1000 J	NA	140 J	1100 J
Butylbenzylphthalate	NA	R	730 U	NA	390 U	R	NA	280 U	R
Carbazole	NA	R	730 U	NA	390 U	R	NA	280 U	R
Chrysene	850 J	200 J	180 J	610	510	1000 J	1700	150 J	850 J
Dibenz(a,h)anthracene	320 J	R	730 U	150	390 U	330 J	220	280 U	R
Dibenzofuran	NA	R	730 U	NA	390 U	R	NA	280 U	R
Diethylphthalate	NA	R	730 U	NA	390 U	R	NA	280 U	R
Di-n-octylphthalate	NA	R	730 U	NA	390 U	R	NA	280 U	R
Fluoranthene	1200 J	390 J	260 J	750	730	1800 J	5200	230 J	1200 J
Fluorene	47 J	R	730 U	78 J	390 U	R	220	280 U	R
Indeno(1,2,3-cd)pyrene	740 J	R	79 J	330	260 J	760 J	1000	280 U	590 J
Naphthalene	26 J	NA	730 U	120 J	390 U	NA	67 J	280 U	NA
N-nitrosodiphenylamine	NA	R	100 J	NA	390 U	R	NA	280 U	R
Phenanthrene	570 J	R	730 U	460	230 J	650 J	2700	280 U	450 J
Pyrene	1000 J	420 J	220 J	650	670	1300 J	4000	230 J	1000 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	17	R	2.4 J	1.9	3.1 U	2.3 J	18 J	4.4	8 J
4,4'-DDE	4	0.52 J	4.4 J	0.9 J	1.3 J	2.5 J	17 J	2.9	1.6 J
4,4'-DDT	1.3 J	R	7.3 U	1.1 J	3.1 U	0.45 J	4 J	2.2 U	1.2 J
Aldrin	0.17 U	R	0.51 J	0.16 U	1.6 U	0.47 J	0.16 UJ	1.1 U	1.4 J
alpha-BHC	0.17 U	R	3.8 U	0.16 U	1.6 U	0.32 J	0.16 UJ	1.1 U	0.91 J
alpha-Chlordane	2.4 J	R	1.8 J	1.1 J	1.6 U	3.2 J	17 J	1.1 U	8.8 J
Aroclor 1248	28 J	R	73 U	15 J	31 U	R	25 J	22 U	R
Aroclor 1254	3.3 U	R	73 U	3.2 U	31 U	R	3.1 U	45	R
Aroclor 1260	58	R	73 U	18	31 U	R	79	22 U	R
beta-BHC	0.17 U	0.71 J	3.8 U	0.16 U	1.6 U	1.5 J	0.16 UJ	1.1 U	2.1 J
delta-BHC	0.17 U	R	3.8 U	0.16 U	1.6 U	R	0.16 UJ	1.1 U	R
Dieldrin	0.78 J	0.42 J	1.5 J	0.32 U	3.1 U	2.2 J	1.4 J	2.2 U	4.3 J
Endosulfan I	0.17 U	R	0.62 J	0.16 U	1.6 U	R	0.16 UJ	1.1 U	R
Endosulfan II	0.33 U	R	7.3 U	0.32 U	3.1 U	R	0.39 J	2.2 U	4.7 J
Endosulfan sulfate	0.33 U	R	7.3 U	0.32 U	3.1 U	R	0.38 J	2.2 U	R
Endrin	1.4 J	0.21 J	2.6 J	0.77 J	3.1 U	0.2 J	9.6 J	2.2 U	0.28 J
Endrin aldehyde	1.8 J	R	1 J	0.87 J	3.1 U	R	2.2 J	2.2 U	2.6 J
Endrin ketone	0.33 U	R	7.3 U	0.32 U	3.1 U	R	0.31 UJ	2.2 UJ	R
gamma-BHC (Lindane)	0.23 J	R	3.8 U	0.34 J	1.6 U	R	0.16 UJ	1.1 U	R
gamma-Chlordane	1.7 J	0.34 J	1.7 J	0.73 J	1.6 U	1 J	16 J	1.1 U	3.3 J
Heptachlor	0.17 U	R	3.8 U	0.16 U	1.6 U	R	0.16 UJ	1.1 U	R
Heptachlor Epoxide	0.46 J	R	3.8 U	0.27 J	1.6 U	R	0.4 J	1.1 U	R
Methoxychlor	1.7 U	R	38 U	1.6 U	16 U	R	1.6 UJ	11 U	R

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-12-01-ME	SD-12-02-FW	SD-12-03-FW	SD-12-03-ME	SD-12-03-TR	SD-13-01-FW	SD-13-01-ME	SD-13-01-TR	SD-13-02-FW
Metals (mg/Kg)									
Aluminum	26000	4560	6820	27500	16500	30200 J	6430 J	17000	34400 J
Antimony	68 J	0.95 UJ	22.4 J	117 J	19.2	61 J	1.7 J	6.6	43.5 J
Arsenic	3230	38.4	1540	4550	958	4210 J	15.9	353	2480 J
Barium	78.8	19.6	27.1	52.5	121	78.8 J	63.8	128	85.3 J
Beryllium	2	0.49 U	0.55	1.7	1.3 J	1.6 J	0.45 J	1.2 J	2 J
Cadmium	11.7	1.3	4.2 J	11.4	13.5	13.8 J	3.1	7.8	10.5 J
Calcium	8920	3590	2230	7160	5340	12700 J	3020	6190	17000 J
Chromium	2120	42.1 J	522 J	726	1310	525 J	61.2 J	494	725 J
Cobalt	36.2	11	15.8	38.1	37.9 J	19 J	7.2 J	21.6 J	15.4 J
Copper	2080	40.5	398	1980	718	2340 J	113	474	2030 J
Cyanide	NA	1.2 U	1.1 U	NA	NA	R	NA	NA	R
Iron	90200	7530	53900	107000	94600	54700 J	12800 J	50900	54100 J
Lead	1240	16.8	192	1220	459	1270 J	340 J	756	911 J
Magnesium	1860	610	715	1480	3070	2310 J	1930	4440	1970 J
Manganese	776	195 J	249 J	586	1180	921 J	123	607	1050 J
Mercury	27.5	0.15 J	4.6 J	44.8	0.17 U	19.5 J	0.25 J	0.48 J	7 J
Nickel	28.3	5.4	11.7	20.5	28.1	22.8 J	15.9 J	27.9	19 J
Potassium	795	160	267	450 U	837 J	640 J	715 J	1370 J	477 J
Selenium	18.3	1.3	7.6	30.3	1 U	26.3 J	0.53 J	1 U	23 J
Silver	0.54 J	0.59 U	0.47 U	1.2 J	1.8	2 J	0.21 J	1 U	2 UJ
Sodium	708 U	200	141	493 U	793 J	1080 J	622	570	1270 J
Thallium	1.2 U	1.4 U	1.4	1.5 U	1.1 UJ	3.7 J	0.43 UJ	1.1 U	R
Vanadium	107	10.8	30.6	127	60.6 J	108 J	27.4	61	78.1 J
Zinc	2640	1390	1370	4760	2680 J	2660 J	445 J	1420 J	2250 J
AVS-SEM (mg/Kg)									
Arsenic	254.66 J	NA	NA	223.951 J	NA	NA	3.745 U	NA	NA
Cadmium	5.6 U	2.5	3.3	8.96	77.728	12.1 J	5.6 U	5.0512	2 J
Copper	80.645	54.7 J	269 J	39.37	331.2795	2270 J	3.175 UJ	253.9873	567 J
Lead	319.088	33.1 J	185 J	675.472	238.13496	1590 J	242.424 J	467.46392	746 J
Mercury	R	0.01 U	0.01 U	R	0.16048 J	0.01 U	10.03 U	0.54162 J	0.02 U
Nickel	15.2594 J	162 U	77.7 U	16.4332 J	12.9118	221 U	8.8035 J	14.208849	48.4 U
SEM/AVS Ratio	0.45	0.52	0.25	1.51	1.14	0.79	1.48125	27.7	0.33
Sulfide	1149.18	2320.83	2924.31	372.36	773.289	2821.59 J	154.08	21.828 J	2821.59 J
Zinc	856.7 J	2410 J	1150 J	876.47 J	1439.42784	1700 J	381.561 J	803.75292 J	1060 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	912000 J	105000	42200	431000 J	NA	234000	232000 J	NA	385000
Total Organic Carbon	NA	NA	NA	NA	150000 J	NA	NA	300000	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-13-03-FW	SD-13-03-ME	SD-14-01-FW	SD-14-02-FW	SD-14-03-FW	SD-15-01-FW	SD-15-01-ME	SD-15-02-FW	SD-15-03-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	R	97 UJ	12 U	12 U	14 U	R	190 UJ	R	R
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	R	97 UJ	12 U	12 U	14 U	R	190 UJ	R	R
1,2-Dichloroethene(total)	R	NA	12 U	12 U	14 U	29 J	NA	24 J	29 J
2-Butanone	R	NA	12 U	12 U	14 U	R	NA	R	R
Acetone	R	NA	140 J	12 U	58 J	210 J	NA	290 J	R
Benzene	R	7 J	12 U	12 U	14 U	R	25 UJ	R	R
Carbon Disulfide	R	NA	12 U	12 U	14 U	18 J	NA	R	R
cis-1,2-Dichloroethene	NA	23 J	NA	NA	NA	NA	187 J	NA	NA
Ethylbenzene	R	13 UJ	12 U	12 U	14 U	R	25 UJ	R	R
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	R	97 UJ	12 U	12 U	14 U	R	190 UJ	R	R
Naphthalene	NA	97 UJ	NA	NA	NA	NA	190 UJ	NA	NA
Tetrachloroethene	R	97 UJ	12 U	12 U	14 U	R	190 UJ	R	41 J
Toluene	R	NA	12 U	12 U	3 J	R	NA	R	R
trans-1,2-Dichloroethene	NA	97 UJ	NA	NA	NA	NA	190 UJ	NA	NA
Trichloroethene	R	37 J	12 U	12 U	14 U	R	206 J	26 J	48 J
Vinyl Chloride	R	97 UJ	12 U	12 U	14 U	R	190 UJ	R	R
Xylene, m/p-	NA	32 UJ	NA	NA	NA	NA	63 UJ	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	R	23 J	2100 UJ	2100 UJ	2300 UJ	R	10 J	R	R
Acenaphthene	R	22 J	2100 UJ	2100 UJ	2300 UJ	R	R	R	R
Acenaphthylene	R	26 J	2100 UJ	2100 UJ	2300 UJ	R	7 J	R	R
Anthracene	R	99	660 J	2100 UJ	2300 UJ	R	50 J	R	R
Benzo(a)anthracene	1200 J	750	1100 J	700 J	1100 J	R	200	R	R
Benzo(a)pyrene	1300 J	890	2100 UJ	2100 UJ	890 J	R	180 J	R	R
Benzo(b)fluoranthene	3600 J	1100 J	920 J	1300 J	2100 J	R	440 J	R	R
Benzo(g,h,i)perylene	340 J	540	2100 UJ	2100 UJ	2300 UJ	R	150 J	R	R
Benzo(k)fluoranthene	3400 J	570 J	1100 J	2100 UJ	2300 UJ	R	270 J	R	R
bis(2-Ethylhexyl)phthalate	5100 J	NA	730 J	2100 UJ	1100 J	R	NA	R	R
Butylbenzylphthalate	230 J	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Carbazole	170 J	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Chrysene	1300 J	1100	1200 J	910 J	1400 J	R	410	R	R
Dibenz(a,h)anthracene	R	180	2100 UJ	2100 UJ	2300 UJ	R	60 J	R	R
Dibenzofuran	R	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Diethylphthalate	R	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Di-n-octylphthalate	R	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Fluoranthene	2400 J	2300	2400 J	2200 J	2800 J	R	990	R	R
Fluorene	R	67 J	2100 UJ	2100 UJ	2300 UJ	R	69 J	R	R
Indeno(1,2,3-cd)pyrene	760 J	610	2100 UJ	2100 UJ	2300 UJ	R	170 J	R	R
Naphthalene	NA	40 J	2100 UJ	2100 UJ	2300 UJ	NA	15 J	NA	NA
N-nitrosodiphenylamine	R	NA	2100 UJ	2100 UJ	2300 UJ	R	NA	R	R
Phenanthrene	770 J	960	2600 J	810 J	1100 J	R	400	R	R
Pyrene	1800 J	1700	1800 J	1200 J	2000 J	R	590	R	R
PCB/Pesticides (ug/Kg)									
4,4'-DDD	12 J	310	9.7 J	21 UJ	23 UJ	R	6.9 J	R	R
4,4'-DDE	13 J	130	8.2 J	21 UJ	23 UJ	R	3.8 J	R	R
4,4'-DDT	2.9 J	12 J	21 UJ	21 UJ	23 UJ	R	1.8 J	R	R
Aldrin	1.6 J	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
alpha-BHC	1.7 J	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
alpha-Chlordane	27 J	93	4.1 J	3.3 J	5 J	R	6 J	R	R
Aroclor 1248	R	170 J	210 UJ	210 UJ	230 UJ	R	43 J	R	R
Aroclor 1254	R	3.3 U	210 UJ	210 UJ	230 UJ	R	3.3 U	R	R
Aroclor 1260	310 J	250	210 UJ	210 UJ	230 UJ	R	83	R	R
beta-BHC	3.1 J	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
delta-BHC	R	15 J	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
Dieldrin	R	11 J	21 UJ	21 UJ	20 J	R	0.57 J	R	R
Endosulfan I	R	1.6 U	8 J	8.2 J	18 J	8.9 J	0.45 J	6 J	15 J
Endosulfan II	R	3.3 U	2.6 J	21 UJ	23 UJ	R	0.33 UJ	R	R
Endosulfan sulfate	R	3.3 U	21 UJ	21 UJ	23 UJ	R	0.33 UJ	R	R
Endrin	R	3.3 U	21 UJ	21 UJ	23 UJ	R	0.48 J	R	R
Endrin aldehyde	10 J	7.5 J	21 UJ	21 UJ	23 UJ	R	2 J	R	R
Endrin ketone	R	3.3 U	21 UJ	21 UJ	23 UJ	R	0.33 UJ	R	R
gamma-BHC (Lindane)	R	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
gamma-Chlordane	18 J	650 J	11 UJ	11 UJ	12 UJ	R	0.98 J	R	R
Heptachlor	R	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 UJ	R	R
Heptachlor Epoxide	R	1.6 U	11 UJ	11 UJ	12 UJ	R	0.17 J	R	R
Methoxychlor	R	16 U	110 UJ	110 UJ	120 UJ	R	1.7 UJ	R	R

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-13-03-FW	SD-13-03-ME	SD-14-01-FW	SD-14-02-FW	SD-14-03-FW	SD-15-01-FW	SD-15-01-ME	SD-15-02-FW	SD-15-03-FW
Metals (mg/Kg)									
Aluminum	27000 J	14800 J	4030	3830	3200	4810 J	6100 J	6670 J	6260 J
Antimony	R	4.2 J	0.99 J	0.89 J	0.85 J	4 J	3.9 J	6 J	R
Arsenic	356 J	186	49.1	61.1	73.4	193 J	184	185 J	104 J
Barium	155 J	107	15.9	13.4	18.4	52.8 J	65.6	62.5 J	48.9 J
Beryllium	1.5 J	1.1 J	0.21	0.19 U	0.2 U	R	0.76 J	R	1.1 J
Cadmium	10.6 J	3.8	0.4	0.53	1	37.4 J	17.7	23.3 J	34.1 J
Calcium	5890 J	6950	1760	1020	1320	15000 J	13400	15700 J	13200 J
Chromium	710 J	562 J	216	53.1 J	43 J	147 J	537 J	229 J	158 J
Cobalt	40.7 J	9.7 J	5	2.9	4.4	14.1 J	23.1 J	17.9 J	16.1 J
Copper	685 J	450	60.1	64.9	46	181 J	306	453 J	469 J
Cyanide	R	NA	0.51 U	0.62 U	0.61 U	R	NA	R	R
Iron	54600 J	20200 J	19400 J	9030	13600	22200 J	16000 J	18500 J	11800 J
Lead	1180 J	771 J	130 J	34.5	40.5	55.4 J	157 J	104 J	84.7 J
Magnesium	7610 J	2370	1750	1270	1200	1280 J	1300	1650 J	1140 J
Manganese	953 J	330	141 J	84.9 J	172 J	1400 J	956	959 J	1130 J
Mercury	3.3 J	14.3 J	0.16 J	1.4 J	0.2 J	0.68 J	1.3 J	0.71 J	R
Nickel	53.4 J	19.4 J	10.4	5.4	6.2	9.6 J	18.9 J	17.5 J	20.5 J
Potassium	2030 J	741 J	586	455	485	259 J	243 J	390 J	282 J
Selenium	5.9 J	3.1 J	0.73 J	0.61 U	0.61	R	1.2 UJ	8.6 J	6.5 J
Silver	1.4 J	0.32 J	0.26 U	0.3 U	0.26 U	R	0.29 J	R	R
Sodium	710 J	798	57.2	75.6	74.4	859 J	642	811 J	962 J
Thallium	3.2 J	0.43 UJ	0.81	0.71 U	0.61 U	R	2.4 J	R	R
Vanadium	120 J	54	13.3	8.9	12.2	14.2 J	22.4	22.9 J	19.3 J
Zinc	2670 J	641 J	220	170	273	3350 J	2490 J	2660 J	1990 J
AVS-SEM (mg/Kg)									
Arsenic	NA	37.45 J	NA	NA	NA	NA	35.203 J	NA	NA
Cadmium	2 J	5.6 U	0.82 J	0.51 J	0.88 J	33.9 J	22.4 J	23.7 J	59.9 J
Copper	341 J	37.465 J	36.1 J	99.3 J	37.5 J	138 U	3.175 UJ	380 J	346 J
Lead	911 J	578.088 J	57.5 J	38.1 J	47.6 J	34 U	167.832 J	71.3 J	65.3 J
Mercury	0.55 J	10.03 U	0.003 U	0.02 J	0.004 U	0.02 U	10.03 U	0.02 U	0.02 U
Nickel	37.4 U	12.3249 J	46.3 U	94.5 J	4.9 U	32.1 U	30.5188 J	169 U	340 U
SEM/AVS Ratio	58	2.26	0.18	2.8	2.9	0.38	0.88	0.88	3
Sulfide	12.84 J	121.659	770.4	73.83	211.86	3434.7 J	1004.73	1351.41	471.87
Zinc	892 J	326.864 J	224 J	205 J	1190 J	2670 J	1719.99 J	2000 J	2510 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	229000	118000 J	11000	4480	12300	432000	702000 J	381000	450000
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-16-01-FW	SD-16-02-FW	SD-16-03-FW	SD-18-01-FW	SD-18-02-FW	SD-18-02-ME	SD-18-02-TR	SD-18-03-FW	SD-18-03-ME
VOCs (ug/Kg)									
1,1,1-Trichloroethane	26 U	13 U	13 U	18 U	R	178 U	70 UJ	R	229 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	R	NA	NA
1,1-Dichloroethane	26 U	13 U	13 U	3 J	R	178 U	R	R	229 U
1,2-Dichloroethene(total)	26 U	13 U	13 U	59	R	NA	NA	R	NA
2-Butanone	26 U	13 UJ	13 UJ	18 U	R	NA	R	65 J	NA
Acetone	26 U	25 UJ	24 UJ	150 UJ	310 J	NA	385 J	230 J	NA
Benzene	26 U	13 U	13 U	18 U	R	24 UJ	R	R	31 UJ
Carbon Disulfide	26 U	13 U	13 U	18 U	R	NA	R	R	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	37 J	R	NA	76 UJ
Ethylbenzene	26 U	13 U	13 U	18 U	R	24 UJ	R	R	31 UJ
Methyl Acetate	NA	NA	NA	NA	NA	NA	R	NA	NA
Methylene Chloride	26 UJ	13 UJ	13 UJ	30 UJ	R	178 U	56 U	R	229 U
Naphthalene	NA	NA	NA	NA	NA	178 U	NA	NA	229 U
Tetrachloroethene	26 U	13 U	13 U	18 U	R	178 U	R	R	229 U
Toluene	26 U	13 U	13 U	18 U	R	NA	R	R	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	178 U	R	NA	229 U
Trichloroethene	26 U	13 U	13 U	18 U	R	59 UJ	R	R	76 UJ
Vinyl Chloride	26 U	13 U	13 U	2 J	R	178 U	R	R	229 U
Xylene, m/p-	NA	NA	NA	NA	NA	59 UJ	R	NA	76 UJ
SVOCs (ug/Kg)									
2-Methylnaphthalene	840 U	420 U	420 U	600 U	R	15 J	410 U	R	21 J
Acenaphthene	840 U	420 U	420 U	600 U	R	30 J	410 U	R	29 J
Acenaphthylene	840 U	420 U	420 U	600 U	R	16 J	410 U	R	23 J
Anthracene	840 U	420 U	420 U	600 U	R	150	410 U	R	130
Benzo(a)anthracene	840 U	420 U	420 U	600 U	R	1400	410 U	R	1400
Benzo(a)pyrene	840 U	420 U	420 U	600 U	R	1900	R	R	1900 J
Benzo(b)fluoranthene	840 U	420 U	45 J	600 U	R	2500 J	180 J	R	2400 J
Benzo(g,h,i)perylene	840 U	420 U	420 U	600 U	R	1400	410 U	R	1600 J
Benzo(k)fluoranthene	840 U	420 U	45 J	600 U	R	1200 J	410 J	R	920 J
bis(2-Ethylhexyl)phthalate	840 U	73 J	420 U	600 U	R	NA	410 U	R	NA
Butylbenzylphthalate	130 J	420 U	420 U	600 U	R	NA	410 U	R	NA
Carbazole	840 U	420 U	420 U	600 U	R	NA	410 U	R	NA
Chrysene	840 U	420 U	420 U	600 U	R	2200	410 U	R	2000
Dibenz(a,h)anthracene	840 U	420 U	420 U	600 U	R	430	410 U	R	410 J
Dibenzofuran	840 U	420 U	420 U	600 U	R	NA	410 U	R	NA
Diethylphthalate	840 U	420 U	420 U	600 U	R	NA	410 U	R	NA
Di-n-octylphthalate	840 UJ	420 U	420 U	600 UJ	R	NA	410 U	R	NA
Fluoranthene	88 J	420 U	50 J	600 U	R	4000	220 J	R	3100
Fluorene	840 U	420 U	420 U	600 U	R	110	410 U	R	94
Indeno(1,2,3-cd)pyrene	840 U	420 U	420 U	600 U	R	1400	410 U	R	1500 J
Naphthalene	840 U	420 U	420 U	600 U	NA	29 J	410 U	NA	34 J
N-nitrosodiphenylamine	840 U	420 U	420 U	600 U	R	NA	410 U	R	NA
Phenanthrene	840 U	420 U	420 U	600 U	R	1400	410 U	R	1200
Pyrene	110 J	420 U	61 J	600 U	R	3100	200 J	R	2600
PCB/Pesticides (ug/Kg)									
4,4'-DDD	11	13	4.2 U	6.1 U	R	23 J	3.2 U	5.1 J	4.9 J
4,4'-DDE	2.9 J	3.6 J	0.32 J	0.83 J	R	28	3.2 U	3.9 J	30
4,4'-DDT	1.8 J	6.8	0.32 J	6.1 U	R	1.2 J	3.2 U	R	1.7 J
Aldrin	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
alpha-BHC	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
alpha-Chlordane	0.67 J	0.45 J	4.2 U	6.1 U	R	7.7 J	1.6 U	R	17 J
Aroclor 1248	84 U	42 U	42 U	61 U	R	60 J	32 U	R	170 J
Aroclor 1254	84 U	42 U	42 U	61 U	R	3.3 U	32 U	R	3.4 U
Aroclor 1260	84 U	42 U	42 U	61 U	R	90	32 U	R	190
beta-BHC	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
delta-BHC	4.3 U	0.29 J	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
Dieldrin	1 J	0.49 J	0.32 J	0.34 J	R	0.33 J	3.2 U	R	0.94 J
Endosulfan I	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
Endosulfan II	8.4 U	4.2 U	4.2 U	6.1 U	R	0.33 U	3.2 U	R	0.34 U
Endosulfan sulfate	8.4 U	4.2 U	4.2 U	6.1 U	R	0.33 U	3.2 U	R	0.41 J
Endrin	8.4 U	4.2 U	4.2 U	0.087 J	R	1.3 J	3.2 U	R	1.1 J
Endrin aldehyde	8.4 U	4.2 U	4.2 U	6.1 U	R	2.4 J	3.2 U	R	3.6 J
Endrin ketone	8.4 U	4.2 U	4.2 U	6.1 U	R	0.33 U	3.2 U	R	0.34 U
gamma-BHC (Lindane)	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
gamma-Chlordane	0.72 J	0.47 J	0.12 J	0.17 J	R	1.9 J	1.6 U	R	26 J
Heptachlor	4.3 UJ	2.1 U	2.2 U	3.1 UJ	R	0.16 U	1.6 U	R	0.17 U
Heptachlor Epoxide	4.3 U	2.1 U	2.2 U	3.1 U	R	0.16 U	1.6 U	R	0.17 U
Methoxychlor	43 U	21 U	22 U	31 U	R	1.6 U	16 U	R	1.7 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-16-01-FW	SD-16-02-FW	SD-16-03-FW	SD-18-01-FW	SD-18-02-FW	SD-18-02-ME	SD-18-02-TR	SD-18-03-FW	SD-18-03-ME
Metals (mg/Kg)									
Aluminum	2800	3690	2480	3970	9650 J	20300	16200	11200 J	24100
Antimony	0.56 J	0.34 U	0.56 U	1.1 J	11 J	8.9 J	26.9	8.3 J	9.2 J
Arsenic	13.6	12.7 J	6.4 J	34.9	279 J	1180	1490	351 J	839
Barium	10.6	12.4	21.2	12.3	24.8 J	143	147	45.8 J	169
Beryllium	0.12 U	0.12	0.016 U	0.44 U	0.67 J	1.8	1.4 J	1.3 J	2.3
Cadmium	0.18	0.34	0.1	1.9	13.8 J	15.1	13	9.1 J	16
Calcium	772	1190 J	3680 J	2960	8900 J	7300	7850	12700 J	6860
Chromium	20.9 J	38.4 J	3.3 J	109 J	340 J	3890	2140	423 J	4340
Cobalt	2.9	4	5.2	3.5	14.2 J	44.3	37.8 J	16.7 J	54.9
Copper	24.8	32.5	7.1	158	1130 J	1010	854	787 J	1310
Cyanide	0.6 U	0.41 U	0.51 U	1.3 U	R	NA	NA	R	NA
Iron	5110	6850	4860	4460	12200 J	99600	120000	18500 J	85100
Lead	10.1	15.4 J	1.9 J	55.4	429 J	469	440	230 J	678
Magnesium	1300	1870	931	711	934 J	2780	2460	1150 J	2930
Manganese	93.3 J	158 J	84 J	93 J	270 J	1630	1740	472 J	1580
Mercury	0.37 J	0.13	0.046 U	0.68999 J	5.7 J	7.5	0.35	1.9 J	5.5
Nickel	4.2	5.7	1.6	4.6	13 J	42.5	24.3	16 J	46.7
Potassium	299	519	515	197	R	894	694 J	195 J	1050
Selenium	0.54 U	0.43 U	0.7 U	1.8	R	8 J	1 U	8.7 J	9 J
Silver	0.27 U	0.21 U	0.35 U	0.66 U	R	0.74 J	1 U	R	0.62 J
Sodium	92	37.3 U	60.8 U	290	929 J	648 U	592 J	1300 J	551 U
Thallium	0.63 U	0.5 U	0.82 U	1.5 U	R	1 U	1.1 UJ	R	1.9 U
Vanadium	6.7	10.3	4.2	8.9	29.1 J	76	56 J	27.1 J	95.9
Zinc	78.5	155 J	36.4 J	420	1240 J	4020	2400 J	2040 J	3600
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	256.907 J	NA	NA	224.7 J
Cadmium	2.5	0.6	0.22 J	2.3	10.9 J	12.32	7.7952	16.1 J	8.96
Copper	29.2 J	55.2	18.7 U	94.7 J	433 J	138.43	467.53145	225 J	260.985
Lead	10.9 J	24.9	11.6	56.3 J	388 J	352.24	277.04712	182 J	493.136
Mercury	0.01 U	0.004 U	0.003 U	0.01 U	0.02 U	R	1.9057 J	0.01 U	R
Nickel	1.7 U	4.5 U	2.6 U	95 U	115 U	27.5843 J	13.762805	76.9 U	35.8009 J
SEM/AVS Ratio	3.9	4.1	3.1	1.2	0.52	1.4	6.12	0.19	1.64
Sulfide	13.803	34.026	20.544	247.17	2009.46 J	548.91	153.438	6805.2 J	510.39
Zinc	74.9 J	222	128	469 J	1570 J	1285.05 J	1411.25352	2290 J	1245.51 J
TOC/TCO (mg/Kg)									
Total Combustible Organics	1390	125 U	3040	61100	259000	361000 J	NA	262000	423000 J
Total Organic Carbon	NA	NA	NA	NA	NA	NA	300000 J	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-19-01-FW	SD-19-01-ME	SD-19-01-TR	SD-19-02-FW	SD-19-03-FW	SD-20-01-FW	SD-20-01-ME	SD-20-02-FW	SD-20-03-FW
VOCs (ug/Kg)									
1,1,1-Trichloroethane	R	237 UJ	51 UJ	R	R	R	343 U	R	R
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	R	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	R	237 UJ	R	R	R	R	343 U	R	R
1,2-Dichloroethene(total)	16 J	NA	NA	18 J	R	15 J	NA	R	R
2-Butanone	290 J	NA	R	160 J	R	107.5 J	NA	R	R
Acetone	R	NA	310 J	R	R	590 J	NA	94 J	R
Benzene	R	32 UJ	R	R	R	R	46 UJ	R	R
Carbon Disulfide	R	NA	R	R	R	19 J	NA	R	R
cis-1,2-Dichloroethene	NA	82 J	R	NA	NA	NA	562 J	NA	NA
Ethylbenzene	R	32 UJ	R	R	R	R	46 UJ	R	R
Methyl Acetate	NA	NA	R	NA	NA	NA	NA	NA	NA
Methylene Chloride	R	237 UJ	51 U	R	R	R	343 U	R	R
Naphthalene	NA	237 UJ	NA	NA	NA	NA	343 U	NA	NA
Tetrachloroethene	R	237 UJ	R	R	R	R	790 U	R	R
Toluene	R	NA	R	R	R	R	NA	R	R
trans-1,2-Dichloroethene	NA	237 UJ	R	NA	NA	NA	343 U	NA	NA
Trichloroethene	R	42 J	R	R	R	R	2025 J	R	R
Vinyl Chloride	R	237 UJ	R	R	R	R	343 U	R	R
Xylene, m/p-	NA	79 UJ	R	NA	NA	NA	114 UJ	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	R	R	400 U	R	R	R	13 J	R	R
Acenaphthene	R	R	400 U	R	R	R	R	R	R
Acenaphthylene	R	R	400 U	R	R	R	6 J	R	R
Anthracene	R	18 J	400 U	R	R	R	26 J	R	R
Benzo(a)anthracene	245 J	130 J	400 U	R	200 J	R	210	1100 J	1000 J
Benzo(a)pyrene	295 J	160 J	210 J	R	270 J	R	290 J	1200 J	730 J
Benzo(b)fluoranthene	935 J	290 J	410	R	700 J	915 J	330	3700 J	3700 J
Benzo(g,h,i)perylene	R	120 J	400 U	R	R	R	210 J	R	R
Benzo(k)fluoranthene	910 J	200 J	400 J	R	680 J	R	370	R	R
bis(2-Ethylhexyl)phthalate	570 J	NA	400 U	R	290 J	2050 J	NA	5900 J	2500 J
Butylbenzylphthalate	R	NA	400 U	R	R	R	NA	R	R
Carbazole	R	NA	400 U	R	R	R	NA	R	R
Chrysene	365 J	230 J	210 J	R	300 J	R	400	1400 J	1500 J
Dibenz(a,h)anthracene	R	46 J	400 U	R	R	R	97 J	R	R
Dibenzofuran	R	NA	400 U	R	R	R	NA	R	R
Diethylphthalate	R	NA	400 U	R	R	R	NA	R	R
Di-n-octylphthalate	R	NA	400 U	R	R	R	NA	R	R
Fluoranthene	510 J	410 J	280 J	R	420 J	770 J	720	3000 J	2900 J
Fluorene	R	14 J	400 U	R	R	R	36 J	R	R
Indeno(1,2,3-cd)pyrene	180 J	140 J	400 U	R	R	R	210 J	830 J	R
Naphthalene	NA	12 J	400 U	NA	NA	NA	14 J	NA	NA
N-nitrosodiphenylamine	R	NA	400 U	R	R	R	NA	R	R
Phenanthrene	R	160 J	400 U	R	R	R	240	890 J	650 J
Pyrene	415 J	340 J	270 J	R	340 J	R	540 J	2500 J	1400 J
PCB/Pesticides (ug/Kg)									
4,4'-DDD	7.5 J	9	3.1 U	2.5 J	11 J	14 J	8.4 J	32 J	26 J
4,4'-DDE	11 J	3.2	1.6 J	4.5 J	20 J	13 J	4.4	32 J	30 J
4,4'-DDT	1.95 J	0.33 U	3.1 U	3.4 J	2.1 J	R	4.6 J	R	R
Aldrin	0.67 J	0.16 U	1.6 U	R	R	R	R	R	R
alpha-BHC	R	0.16 U	1.6 U	0.47 J	R	R	0.16 U	R	R
alpha-Chlordane	4.65 J	0.98 J	1.6 U	2.1 J	4.6 J	14.5 J	12 J	42 J	49 J
Aroclor 1248	R	35 J	31 U	R	R	R	28 J	R	R
Aroclor 1254	R	3.3 U	31 U	R	R	R	3.1 U	R	R
Aroclor 1260	R	11	31 U	R	R	R	79	R	R
beta-BHC	2.35 J	0.16 U	1.6 U	2.2 J	R	R	0.16 U	R	R
delta-BHC	R	0.16 U	1.6 U	R	R	R	0.16 U	R	R
Dieldrin	4.85 J	2.5 J	3.1 U	1.8 J	3.8 J	R	0.7 J	R	R
Endosulfan I	1.065 J	0.44 J	1.6 U	0.72 J	R	R	0.16 U	38 J	42 J
Endosulfan II	R	0.33 U	3.1 U	R	R	R	0.31 U	R	R
Endosulfan sulfate	R	0.33 U	3.1 U	R	R	R	0.31 U	R	R
Endrin	5.05 J	0.92 J	3.1 U	1.4 J	3.5 J	R	0.97 J	R	R
Endrin aldehyde	1.6 J	0.33 U	3.1 U	R	2.4 J	R	1.3 J	R	R
Endrin ketone	R	0.33 U	3.1 U	R	R	R	0.31 U	R	R
gamma-BHC (Lindane)	R	0.16 U	1.6 U	R	R	R	0.16 U	R	R
gamma-Chlordane	4.8 J	0.59 J	1.6 U	2.7 J	4.6 J	11.9 J	6.8 J	R	R
Heptachlor	R	0.16 U	1.6 U	R	R	R	R	R	R
Heptachlor Epoxide	R	0.16 U	1.6 U	R	R	R	0.49 J	R	R
Methoxychlor	R	1.6 U	16 U	R	R	R	1.6 U	R	R

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-19-01-FW	SD-19-01-ME	SD-19-01-TR	SD-19-02-FW	SD-19-03-FW	SD-20-01-FW	SD-20-01-ME	SD-20-02-FW	SD-20-03-FW
Metals (mg/Kg)									
Aluminum	19750 J	10100	7060	6240 J	12800 J	18450 J	13500 J	26800 J	29700 J
Antimony	23.15 J	5.2 J	16.4	3.9 J	9.2 J	4.25 J	3.8 J	4 J	5.4 J
Arsenic	3790 J	182	4250	180 J	1850 J	264.5 J	236	321 J	311 J
Barium	123.1 J	66.5	205	40.1 J	55.4 J	57.25 J	44.2	151 J	112 J
Beryllium	1.7 J	2.9	0.68 J	R	1.3 J	1.55 J	1.2 J	1.8 J	2 J
Cadmium	12.85 J	7.4	8.3	11.3 J	18.9 J	13.15 J	15.3	17.3 J	18.5 J
Calcium	7445 J	11800	4120	13400 J	7760 J	13150 J	11100	9870 J	10100 J
Chromium	2335 J	226	866	93.7 J	1540 J	1450 J	1090 J	1860 J	1450 J
Cobalt	45.05 J	18.7	37.3 J	12.8 J	16.6 J	25.9 J	28.3 J	41.4 J	46.3 J
Copper	1330 J	557	354	98.6 J	841 J	1075 J	1060	888 J	1030 J
Cyanide	R	NA	NA	R	R	R	NA	R	R
Iron	163500 J	19800	258000	14400 J	89400 J	24100 J	18500 J	43800 J	34900 J
Lead	639 J	197	206	35.8 J	326 J	449.5 J	450 J	980 J	1200 J
Magnesium	1945 J	1300	1280	850 J	1270 J	2300 J	1530	6030 J	6720 J
Manganese	1160 J	677	2020	412 J	679 J	901.5 J	711	793 J	511 J
Mercury	7.1 J	0.98	0.11 U	0.48 J	1.6 J	1 J	1.3 J	2.6 J	3.3 J
Nickel	33.55 J	14.6	0.8 U	11.1 J	20.3 J	34.05 J	27.5 J	51.2 J	57.7 J
Potassium	650.5 J	342 U	R	275 J	434 J	569 J	454 J	1680 J	2000 J
Selenium	13.05 J	5.6	1 U	2.5 J	9.1 J	11.1 J	3.3 J	6.9 J	7 J
Silver	R	0.12 UJ	1 U	R	R	R	0.29 J	1.6 J	R
Sodium	368 J	706 U	365 U	458 J	384 J	900 J	612	979 J	922 J
Thallium	R	1.5 U	1.1 UJ	R	R	R	0.44 UJ	R	4.4 J
Vanadium	92.65 J	25.4	32.4 J	10.5 J	50.9 J	49.8 J	38.2	106 J	115 J
Zinc	2960 J	1080	1600 J	1690 J	2260 J	1670 J	2380 J	3470 J	3380 J
AVS-SEM (mg/Kg)									
Arsenic	NA	38.948 J	NA	NA	NA	NA	83.888 J	NA	NA
Cadmium	9.55	5.6 U	7.3696	9.3	18.3	16.6 J	10.08 J	14.8 J	13.2
Copper	798.5 J	24.13	271.06245	797 J	1540 J	550.5 J	81.915 J	594 J	619 J
Lead	451 J	124.32	175.82992	457 J	548 J	383 J	296.296 J	733 J	796
Mercury	0.01 U	R	0.02006 J	0.01 U	0.05 J	0.02 U	10.03 U	0.01 U	0.04
Nickel	257.8 J	8.8035 J	0.804053	334 J	220 U	137 U	42.2568 J	202 U	41.4 U
SEM/AVS Ratio	0.865	1.55	4.01	1.0	3.1	1.4	1.36	2.1	38
Sulfide	1887.48	220.848	180.723	1726.98	590.64	820.155 J	568.17	850.65 J	41.73
Zinc	1985 J	629.345 J	1190.4762	2210 J	1970 J	1600 J	1357.54 J	2830 J	2340
TOC/TCO (mg/Kg)									
Total Combustible Organics	323500	686000 J	NA	380000	363000	362000	441000 J	234000	247000
Total Organic Carbon	NA	NA	290000 J	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-21-01-FW	SD-21-01-ME	SD-21-02-FW	SD-21-03-FW	SD-22-01-FW	SD-22-01-TR	SD-22-02-FW	SD-22-02-ME
VOCs (ug/Kg)								
1,1,1-Trichloroethane	R	75 UJ	R	R	R	150 U	26 U	205 U
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	R	NA	NA
1,1-Dichloroethane	R	225 UJ	R	R	R	R	26 U	205 U
1,2-Dichloroethene(total)	R	NA	R	R	R	NA	26 U	NA
2-Butanone	R	NA	R	R	R	R	26 U	NA
Acetone	R	NA	R	R	R	2400 J	26 U	NA
Benzene	R	22 J	R	R	R	R	26 U	27 UJ
Carbon Disulfide	R	NA	R	R	R	R	26 U	NA
cis-1,2-Dichloroethene	NA	76 UJ	NA	NA	NA	R	NA	73 J
Ethylbenzene	R	30 UJ	R	R	R	R	26 U	27 UJ
Methyl Acetate	NA	NA	NA	NA	NA	R	NA	NA
Methylene Chloride	R	225 UJ	R	R	R	150 U	28 J	205 U
Naphthalene	NA	208.25 J	NA	NA	NA	NA	NA	205 U
Tetrachloroethene	R	75 UJ	R	R	410 J	R	120	3164
Toluene	R	NA	R	R	R	R	26 U	NA
trans-1,2-Dichloroethene	NA	225 UJ	NA	NA	NA	R	NA	205 U
Trichloroethene	R	19 J	R	R	21 J	R	26 U	803
Vinyl Chloride	R	225 UJ	R	R	R	R	26 U	205 U
Xylene, m/p-	NA	30 UJ	NA	NA	NA	R	NA	68 UJ
SVOCs (ug/Kg)								
2-Methylnaphthalene	R	140	R	R	R	540 U	870 U	13 J
Acenaphthene	R	67 J	R	R	R	540 U	870 U	R
Acenaphthylene	R	38 J	R	R	R	540 U	870 U	12 J
Anthracene	R	420	R	R	R	540 U	870 U	46 J
Benzo(a)anthracene	R	390	R	R	R	540 U	870 U	300
Benzo(a)pyrene	R	890 J	R	R	R	R	870 U	200
Benzo(b)fluoranthene	3100 J	980	740 J	R	430 J	540 U	870 U	440
Benzo(g,h,i)perylene	R	710 J	R	R	R	540 U	870 U	190
Benzo(k)fluoranthene	R	67 U	R	R	R	540 J	870 U	290
bis(2-Ethylhexyl)phthalate	3100 J	NA	990 J	3100 J	R	540 U	870 U	NA
Butylbenzylphthalate	R	NA	R	R	R	540 U	870 U	NA
Carbazole	R	NA	R	R	R	540 U	870 U	NA
Chrysene	R	940	R	R	R	540 U	870 U	400
Dibenz(a,h)anthracene	R	240 J	R	R	R	540 U	870 U	44 J
Dibenzofuran	R	NA	R	R	R	540 U	870 U	NA
Diethylphthalate	R	NA	R	R	R	540 U	870 U	NA
Di-n-octylphthalate	R	NA	R	R	R	540 U	870 U	NA
Fluoranthene	2500 J	1400	970 J	R	530 J	540 U	260 J	840
Fluorene	R	240	R	R	R	540 U	870 U	26 J
Indeno(1,2,3-cd)pyrene	R	620 J	R	R	R	540 U	870 U	220
Naphthalene	NA	1300 J	2500 J	NA	NA	540 U	870 U	25 J
N-nitrosodiphenylamine	R	NA	R	R	R	540 U	870 U	NA
Phenanthrene	R	600	R	R	R	540 U	870 U	490
Pyrene	2400 J	1300	620 J	R	R	540 U	870 U	610
PCB/Pesticides (ug/Kg)								
4,4'-DDD	28 J	35 J	R	27 J	R	4.5 U	8.7 UJ	9.6 J
4,4'-DDE	36 J	22	R	35 J	30 J	4.5 U	8.3 J	31
4,4'-DDT	R	4.4 J	R	R	R	4.5 U	8.7 UJ	2.7 J
Aldrin	R	1.6 U	R	R	R	2.3 U	4.5 UJ	0.15 U
alpha-BHC	R	1.6 U	R	R	R	2.3 U	4.5 UJ	0.15 U
alpha-Chlordane	60 J	29	R	62 J	R	2.3 U	4.5 UJ	1.2 J
Aroclor 1248	R	240 J	R	R	R	45 U	87 UJ	8.1 J
Aroclor 1254	R	3.2 U	R	R	R	45 U	87 UJ	3.1 U
Aroclor 1260	R	420	R	R	R	45 U	87 UJ	29
beta-BHC	R	1.6 U	R	R	R	2.3 U	4.5 UJ	0.15 U
delta-BHC	R	1.8 J	R	R	R	2.3 U	4.5 UJ	0.16 J
Dieldrin	R	3.2 U	R	R	R	4.5 U	8.7 UJ	0.38 J
Endosulfan I	68 J	1.6 U	14 J	59 J	4.3 J	2.3 U	2.5 J	0.18 J
Endosulfan II	R	5.2	R	R	R	4.5 U	8.7 UJ	0.48 J
Endosulfan sulfate	R	3.2 U	R	R	R	4.5 U	8.7 UJ	0.31 U
Endrin	16 J	3.6 J	R	R	R	4.5 U	8.7 UJ	0.31 U
Endrin aldehyde	R	9 J	R	R	R	4.5 U	8.7 UJ	3.3 J
Endrin ketone	R	3.2 U	R	R	R	4.5 U	8.7 UJ	0.31 U
gamma-BHC (Lindane)	R	1.6 U	R	R	R	2.3 U	4.5 UJ	0.15 U
gamma-Chlordane	R	19 J	R	47 J	R	2.3 U	4.5 UJ	0.19 J
Heptachlor	R	1.6 U	R	R	R	2.3 U	4.5 UJ	0.15 U
Heptachlor Epoxide	R	1.6 U	R	R	4.9 J	2.3 U	2.3 J	0.29 J
Methoxychlor	R	16 U	R	R	R	23 U	45 UJ	1.5 U

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-21-01-FW	SD-21-01-ME	SD-21-02-FW	SD-21-03-FW	SD-22-01-FW	SD-22-01-TR	SD-22-02-FW	SD-22-02-ME
Metals (mg/Kg)								
Aluminum	18400 J	11300 J	8890 J	16000 J	6030 J	3010	3560	2700 J
Antimony	R	2 J	R	R	R	38.2	2.1 U	8 J
Arsenic	187 J	258	121 J	135 J	R	12.6	3.7 U	6.6
Barium	150 J	181	55.3 J	124 J	50 J	48.1	29.8	32.9
Beryllium	1.1 J	0.93 J	0.68 J	0.89 J	1.1 J	0.31 J	0.48	0.48 J
Cadmium	17.3 J	14.1	20.5 J	18.8 J	0.62 J	1	0.2	0.61
Calcium	7640 J	8290	4920 J	4990 J	20000 J	19300	13600	19600
Chromium	2200 J	5590 J	489 J	1320 J	35.3 J	10.6	12	11.7 J
Cobalt	29.9 J	26.9 J	12.8 J	22.9 J	3.2 J	2.5	1.4	2.7 J
Copper	481 J	613	324 J	410 J	22.1 J	29.5	12.2	26
Cyanide	R	NA	R	R	R	NA	1.3 U	NA
Iron	28000 J	20800 J	11300 J	27700 J	4700 J	3310	2310 J	2710 J
Lead	722 J	546 J	187 J	652 J	601 J	3880	967 J	3970 J
Magnesium	4710 J	2170	1250 J	4330 J	1390 J	1510	861	1370
Manganese	247 J	268	101 J	215 J	100 J	51.8	34.4 J	36.7
Mercury	17.5 J	0.15	2.3 J	18.2 J	R	0.03 U	0.1 UJ	0.5
Nickel	46.8 J	29.8 J	17.9 J	36.3 J	8 J	7.4	4.4	9.2 J
Potassium	1330 J	531 J	245 J	1050 J	467 J	303 J	388	260 J
Selenium	3.5 J	3.2 J	R	3 J	7.5 J	1.9 J	2.3	8.1 J
Silver	R	0.3 J	R	R	R	1 U	0.87	0.22 J
Sodium	1240 J	796	1010 J	978 J	567 J	1320	204	546
Thallium	R	0.44 UJ	R	R	R	1.1 UJ	1.2 U	0.44 UJ
Vanadium	77.3 J	46.2	26.6 J	64.4 J	35.3 J	41.6	12.6	38.8
Zinc	3830 J	4940 J	2350 J	3130 J	59.8 J	111 J	23	34.2 J
AVS-SEM (mg/Kg)								
Arsenic	NA	14.231 J	NA	NA	NA	NA	NA	3.745 U
Cadmium	13.9 J	10.08 UJ	14.7 J	8.8 J	0.56 J	0.5936 J	0.23 J	5.6 U
Copper	348 J	3.175 UJ	318 J	226 J	17.1 U	12.1158	41.7 J	33.655 J
Lead	548 J	348.096 J	276 J	421 J	525 J	1621.58864	998 J	4226.88 J
Mercury	0.18 J	10.03 U	0.08 J	0.08 J	0.01 U	0.44132 J	0.01 U	10.03 U
Nickel	34.9 U	9.9773 J	22.6 U	21.4 U	19.9 U	5.446432	147 J	20.5415 J
SEM/AVS Ratio	11	0.99	4.1	18	0.64	4.82	2.8	467.6
Sulfide	170.13 J	898.8	481.5 J	57.78 J	173.34 J	9.309	96.3 J	1.605 U
Zinc	3150 J	1693.63 J	3620 J	1760 J	61.7 J	72.54168	24.1 J	138.39 J
TOC/TCO (mg/Kg)								
Total Combustible Organics	NA	344000 J	NA	NA	NA	NA	NA	693000 J
Total Organic Carbon	288000	NA	441000	244000	371000	430000 J	198000	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-22-03-FW	SD-AM-01	SD-AO-01	SD-AO-02	SD-AO-03	SD-AO-03-TR	SD-AO-04	SD-AO-05	SD-AS-01
VOCs (ug/Kg)									
1,1,1-Trichloroethane	R	NA	NA	NA	NA	50 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	50 UJ	NA	NA	NA
1,1-Dichloroethane	R	NA	NA	NA	NA	R	NA	NA	NA
1,2-Dichloroethene(total)	R	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	R	NA	NA	NA	NA	99 J	NA	NA	NA
Acetone	R	NA	NA	NA	NA	340 J	NA	NA	NA
Benzene	R	NA	NA	NA	NA	R	NA	NA	NA
Carbon Disulfide	R	NA	NA	NA	NA	R	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Ethylbenzene	R	NA	NA	NA	NA	R	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	140 J	NA	NA	NA
Methylene Chloride	100 J	NA	NA	NA	NA	50 UJ	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	830 J	NA	NA	NA	NA	R	NA	NA	NA
Toluene	R	NA	NA	NA	NA	17 J	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Trichloroethene	200 J	NA	NA	NA	NA	R	NA	NA	NA
Vinyl Chloride	R	NA	NA	NA	NA	R	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	R	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Acenaphthene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Acenaphthylene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Anthracene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Benzo(a)anthracene	R	NA	NA	NA	NA	240 J	NA	NA	NA
Benzo(a)pyrene	R	NA	NA	NA	NA	290 J	NA	NA	NA
Benzo(b)fluoranthene	R	NA	NA	NA	NA	520	NA	NA	NA
Benzo(g,h,i)perylene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Benzo(k)fluoranthene	R	NA	NA	NA	NA	350 UJ	NA	NA	NA
bis(2-Ethylhexyl)phthalate	R	NA	NA	NA	NA	230 J	NA	NA	NA
Butylbenzylphthalate	R	NA	NA	NA	NA	350 U	NA	NA	NA
Carbazole	R	NA	NA	NA	NA	350 U	NA	NA	NA
Chrysene	R	NA	NA	NA	NA	290 J	NA	NA	NA
Dibenz(a,h)anthracene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Dibenzofuran	R	NA	NA	NA	NA	350 U	NA	NA	NA
Diethylphthalate	R	NA	NA	NA	NA	350 U	NA	NA	NA
Di-n-octylphthalate	R	NA	NA	NA	NA	350 U	NA	NA	NA
Fluoranthene	R	NA	NA	NA	NA	540	NA	NA	NA
Fluorene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	R	NA	NA	NA	NA	350 U	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	350 U	NA	NA	NA
N-nitrosodiphenylamine	R	NA	NA	NA	NA	350 U	NA	NA	NA
Phenanthrene	R	NA	NA	NA	NA	200 J	NA	NA	NA
Pyrene	R	NA	NA	NA	NA	500	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
4,4'-DDE	R	NA	NA	NA	NA	2.4 J	NA	NA	NA
4,4'-DDT	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Aldrin	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
alpha-BHC	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
alpha-Chlordane	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
Aroclor 1248	R	NA	NA	NA	NA	28 U	NA	NA	NA
Aroclor 1254	R	NA	NA	NA	NA	28 U	NA	NA	NA
Aroclor 1260	R	NA	NA	NA	NA	28 U	NA	NA	NA
beta-BHC	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
delta-BHC	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
Dieldrin	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Endosulfan I	4.4 J	NA	NA	NA	NA	1.4 U	NA	NA	NA
Endosulfan II	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Endosulfan sulfate	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Endrin	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Endrin aldehyde	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
Endrin ketone	R	NA	NA	NA	NA	2.8 U	NA	NA	NA
gamma-BHC (Lindane)	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
gamma-Chlordane	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
Heptachlor	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
Heptachlor Epoxide	R	NA	NA	NA	NA	1.4 U	NA	NA	NA
Methoxychlor	R	NA	NA	NA	NA	14 U	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-22-03-FW	SD-AM-01	SD-AO-01	SD-AO-02	SD-AO-03	SD-AO-03-TR	SD-AO-04	SD-AO-05	SD-AS-01
Metals (mg/Kg)									
Aluminum	3520 J	7500	19700	20550	20300	18400	19800	21100	15700
Antimony	R	2 J	R	R	R	5.1	R	R	2.15 J
Arsenic	R	121	113	118.5	132	128	129	156	111
Barium	51.4 J	58.4	179	187	184	189	187	215	95.85
Beryllium	0.4 J	0.64	1	1.1	1.1	1.1 J	1.1	1.2	0.895
Cadmium	R	3.9	9.7	11.45	10.9	10	10.2	12.1	10.6
Calcium	30500 J	3480 J	7490	7570	7710	9840	6960	9300	5740 J
Chromium	10.7 J	322	338	364.5	353	317	347	366	576.5
Cobalt	2 J	20.3	25.1	26.6	28.8	26.6 J	25	35	21
Copper	17.1 J	197	426	469	448	403	439	512	444.5
Cyanide	R	0.85 J	1.4	1.5	1.8	NA	0.92	0.52 J	3.8 J
Iron	3430 J	23400 J	42600 J	44000 J	46200 J	43400	45300 J	48400 J	27850 J
Lead	383 J	150	545	633	662	553	564	641	484
Magnesium	1790 J	2010	6240	6495	6250	5830	6210	6260	4435
Manganese	74.1 J	1140 J	979	855	1280	1210	1280	2370	378.5 J
Mercury	R	1.9	1.3 J	1.45 J	1.5 J	0.29 J	1.4 J	1.4 J	3.05
Nickel	6.3 J	18 J	41.4	45.6	45.8	36.4	42	46.6	35 J
Potassium	287 J	497	1620	1695	1630	1840 J	1600	1600	963.5
Selenium	5.9 J	1.1 J	2.5	2.7 J	1.6 J	0.99 U	2.2	3.4 J	1.95 J
Silver	R	0.42 UJ	0.38 J	0.565 J	0.5 J	0.99 U	0.4 J	0.41 UJ	0.605 J
Sodium	420 J	231 J	617 J	703.5 J	672 J	732	633 J	647 J	462
Thallium	R	0.44 J	0.6 J	0.715 J	0.67 J	1.1 U	0.61 J	0.8 J	0.95 J
Vanadium	29.4 J	26.9	71.8 J	76.4 J	80.8 J	65.7	74.4 J	84.1 J	59
Zinc	34.5 J	941	1960	2285	2180	1860 J	2000	2580	2085
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.37 U	NA	NA	NA	NA	6.3616	NA	NA	NA
Copper	44.2 U	NA	NA	NA	NA	209.191225	NA	NA	NA
Lead	258 J	NA	NA	NA	NA	347.8888	NA	NA	NA
Mercury	0.01 U	NA	NA	NA	NA	0.11033 J	NA	NA	NA
Nickel	73.2 U	NA	NA	NA	NA	16.7530605	NA	NA	NA
SEM/AVS Ratio	1.3	NA	NA	NA	NA	179.35	NA	NA	NA
Sulfide	44.94 J	NA	NA	NA	NA	4.09275 J	NA	NA	NA
Zinc	36.2 J	NA	NA	NA	NA	1049.137 J	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	514000	NA	NA	NA	NA	210000	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	5.3	NA	6.23	NA	NA	NA	NA	6.645
Redox Potential	NA	-71	NA	-45	NA	NA	NA	NA	-78
Sulfide	NA	828 J	NA	2840 J	NA	NA	NA	NA	757 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AS-02	SD-BW-01	SD-BW-02	SD-BW-03	SD-BW-04	SD-BW-05	SD-CB-01-01	SD-CB-01-02	SD-CB-01-03	SD-CB-01-04	SD-CB-01-05
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AS-02	SD-BW-01	SD-BW-02	SD-BW-03	SD-BW-04	SD-BW-05	SD-CB-01-01	SD-CB-01-02	SD-CB-01-03	SD-CB-01-04	SD-CB-01-05
Metals (mg/Kg)											
Aluminum	18800	19250	15700	16000	18900	15500	4230	16000	13900 J	21100 J	7600 J
Antimony	2.9 J	19.75 J	11.1 J	12.5	11.8	11.5	2 UJ	1.5 UJ	1.5 UJ	1.5 UJ	0.77 J
Arsenic	121	656 J	772 J	1360 J	725 J	689 J	31.8	80.8	45.2 J	98.7 J	18.65 J
Barium	109	81.9	181	144 J	117 J	173 J	16.3 U	46.3	25.6	22.2	19.35
Beryllium	1.1	1.35	1.2	1.3	1.4	1.1	0.33	1.2	1.3	2	0.35
Cadmium	13.3	10.75 J	12.2 J	6	10.9	11.9	1.8 J	16.1 J	10.6 J	5.2 J	1.7 J
Calcium	6120 J	10200	5210	5990	9350	6610	3810	9550	6770	8250	1345
Chromium	918	2305	720	934 J	1440 J	1590 J	75.4	584	490 J	347 J	62.9 J
Cobalt	19.7	27.45	40.7	53.6	23.6	57.5	3.1	33.4	2.8	3.9	2.45
Copper	576	836	535	550 J	743 J	648 J	87.6	513	1000 J	1090 J	122.5 J
Cyanide	1.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	29200 J	54850	121000	189000	88300	127000	9250	27200	8320	27200	6670
Lead	661	570.5	405	457	513	455	146 J	648 J	490 J	563 J	171 J
Magnesium	5130	4035	3450	3440	4390	3560	1000	3270	1650	1730	555
Manganese	384 J	521	1510	1530 J	696 J	1180 J	51.5	155	145 J	719 J	96.85 J
Mercury	3.1	2.3 J	3 J	1.4	3.6	1.8	0.28	1.5	3.6 J	4.8 J	0.67 J
Nickel	39.4 J	33.7	32.6	38	37.6	46.9	5.3 J	31.8 J	5.7	5.5	6.15 J
Potassium	1180	975.5	1160	747 J	1010 J	799 J	219 U	648 U	346	371	121
Selenium	1.8 J	5.3 J	6.1 J	11.5 J	8.8 J	9.4 J	2.4 J	5.6 J	4.2 J	8.3 J	1.7 J
Silver	0.76 J	0.94	2.5	1.3	2.2	1.4	0.14 U	0.98 U	1 U	0.99 U	0.12 U
Sodium	562	883.5 J	939 J	959 J	1860 J	1000 J	598	2160	1420	791	491
Thallium	1.2 J	3.85 J	6.7 J	18.1 J	8 J	12 J	0.61 U	2.8 J	1 U	3.1	0.425 J
Vanadium	72.6	82.9	65.2	73.6	79.9	74.8	24.4	111	57.5	29.7	34.8
Zinc	2290	1780	1710	1620	1810	3050	58.4	1190	813	235	318.5
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	160000	177000	138000	160000	173000	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)											
pH	6.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.785
Redox Potential	-49	NA	NA	NA	NA	NA	NA	NA	NA	NA	281.5
Sulfide	183 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	91.2 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-01-06	SD-CB-01-07	SD-CB-01-08	SD-CB-01-09	SD-CB-01-10	SD-CB-02-01	SD-CB-02-02	SD-CB-02-03	SD-CB-02-04	SD-CB-02-05	SD-CB-02-06
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-01-06	SD-CB-01-07	SD-CB-01-08	SD-CB-01-09	SD-CB-01-10	SD-CB-02-01	SD-CB-02-02	SD-CB-02-03	SD-CB-02-04	SD-CB-02-05	SD-CB-02-06
Metals (mg/Kg)											
Aluminum	11300 J	14800 J	11400 J	6730 J	11800 J	8170	4630	3380	4680	4340	3130
Antimony	0.57 UJ	4 J	1.7 J	0.87 UJ	2 J	1.5 J	0.89 J	2 J	1.7 J	1.9 J	2 J
Arsenic	12.5 J	35 J	44.5 J	8.2 J	37.3 J	18.5 J	11.4 J	55.5 J	16.3 J	24.7 J	56.2 J
Barium	13.9 U	86.9	46.5	35.3	105	55.7	13.6	23.8	16.4	29.6	23.6
Beryllium	0.75	1.9	0.72	0.52	1	0.49	0.3	0.2	0.29	0.25	0.23
Cadmium	1.1 J	5.5 J	1.8 J	1.6 J	6.3 J	5.8 J	3.6 J	2.65 J	3.1 J	0.91 J	4.1 J
Calcium	805	3680	4020	7220	13300	5310	2950	7180	4430	2540	1320
Chromium	42.7 J	216 J	244 J	27.5 J	83 J	248 J	151 J	79.6 J	145 J	122 J	60.3 J
Cobalt	5.6	2.3	3.8	0.79	2.3	3.6	3.1	6.5	5.8	3.6	1.2
Copper	102 J	438 J	368 J	58.1 J	111 J	168	92	63.25 J	76.2	59.4 J	57.8 J
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	4250	5650	8100	4550	9400	7190	3960	6630	5040	9640	5470
Lead	88.1 J	532 J	244 J	75 J	217 J	191	87.1	81.95	112	67.4	75.5 J
Magnesium	968	1280	1130	1020	2660	2020	1130	750	1380	1370	460
Manganese	617 J	70.1 J	84 J	185 J	1260 J	64.7 J	34.6 J	51.3 J	34.5 J	108 J	38.9 J
Mercury	0.35 J	1.4 J	2 J	0.28 J	0.44 J	0.58	0.12	0.175	0.21	0.34	0.3
Nickel	7.5	7.8	10.9	4	7.1	11 J	6.4 J	7.05 J	12.8 J	7.2 J	2.1
Potassium	170	257	197	230	785	554	276	236	298	268	174
Selenium	1.8 J	5.1 J	3.9 J	1.2 J	2.9 J	3.1 J	2.1 J	1.7 U	2.5 J	1.3 J	2.8 U
Silver	0.38 U	0.86 U	0.61 U	0.58 U	0.87 U	R	R	R	R	R	R
Sodium	278	1290	644	532	1130	785	503	694.5 J	904	500	700 J
Thallium	1	0.86 U	0.61 U	0.58 U	1.3 J	0.75 U	0.64 U	0.99 U	0.75 U	0.61 U	1.7 U
Vanadium	21.9	114	60	23.8	58.4	32.3	20	26.75	45.6	22.3	19.4
Zinc	91.7	738	219	136	421	132 J	135 J	214.5 J	292 J	142 J	204 J
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)											
pH	NA	NA	NA	5.98	NA	NA	NA	5.95	NA	NA	NA
Redox Potential	NA	NA	NA	324	NA	NA	NA	246	NA	NA	NA
Sulfide	NA	NA	NA	123 J	NA	NA	NA	231 J	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-02-07	SD-CB-02-08	SD-CB-02-09	SD-CB-02-10	SD-CB-03-01	SD-CB-03-02	SD-CB-03-03	SD-CB-03-04	SD-CB-03-05	SD-CB-03-06	SD-CB-03-07
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-02-07	SD-CB-02-08	SD-CB-02-09	SD-CB-02-10	SD-CB-03-01	SD-CB-03-02	SD-CB-03-03	SD-CB-03-04	SD-CB-03-05	SD-CB-03-06	SD-CB-03-07
Metals (mg/Kg)											
Aluminum	4670	3900	1865	5620	16100 J	4050 J	5850 J	5530	10400 J	12800	11200
Antimony	2 J	1.1 J	1 J	1.3 J	0.64 UJ	0.43 UJ	0.48 UJ	0.54 UJ	4.5 J	4.2 J	3.5 UJ
Arsenic	45.3 J	21 J	7.55 J	14.6 J	44 J	9.1 J	19.8 J	13.9	111 J	510	117
Barium	389	52.7	125	55.6	30.7 J	21	20.7	20.95	86.7 J	93.6 J	36.6
Beryllium	0.34	0.28	0.16	0.33	0.5	0.2	0.26	0.31	0.71 J	0.91	0.61
Cadmium	3.2 J	2 J	2.75 J	2.8 J	3.3 J	1.1 J	1.2 J	0.77 J	17.5 J	23.1 J	5.7 J
Calcium	1730	3190	11650	3330	3240	1980	1680	1505	8550 J	7700	4670
Chromium	94.9 J	53.7 J	17.9 J	88.2 J	153 J	38.7 J	43.5 J	59.55	672 J	768	514
Cobalt	2.7	3.8	7.45	4.6	9.7 J	5.9	5.7	4.35	13.4 J	130 J	6
Copper	84.1 J	55.6 J	38.3 J	58.1 J	124 J	29.2 J	36.3 J	40.55	580 J	670 J	396
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	5320	6850	4565	4470	17900	8230	9890	8930	11400 J	66100	11100
Lead	342 J	67 J	73.8 J	90.8 J	114 J	27.4 J	28.1 J	24.4 J	434 J	443 J	296 J
Magnesium	846	1180	921	1310	2030	1720	2270	2590	2740 J	3320	3290
Manganese	43.2 J	55.5 J	87.9 J	41.3 J	113 J	233 J	242 J	88.8	348 J	581	91.2
Mercury	0.18	0.15	0.19 J	0.16	0.22 J	0.058 J	0.065 J	0.1105 J	1.5 J	2.9	2.9
Nickel	8.2	8.1	9.7	10.2	17	8.7	10.7	10.8 J	31.6 J	78.3 J	18.4 J
Potassium	199	310	195.5	375	370 J	387	466	382 U	595 UJ	851 UJ	690 U
Selenium	1.3 U	1.1 J	2 U	0.97 U	2.5 J	0.69 J	1 J	1.5 J	R	8.8	2.8 J
Silver	R	R	R	R	0.43 U	0.29 U	0.32 U	0.11 U	R	3.2 J	0.15 U
Sodium	930 J	748 J	1290 J	1400 J	989	326	391	657	6240 J	8880 J	1440
Thallium	0.8 U	0.54 U	1.2 U	0.58 U	1.5 J	1.2	1.4	0.48 U	R	1.7 U	0.63 U
Vanadium	25.2	18.5	19.25	37.2	25.4 J	13.5	16.1	19.55	63.6 J	66.2 J	54.8
Zinc	409 J	278 J	450 J	243 J	597	135	181	196	2430 J	5270	645
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)											
pH	NA	NA	5.67	NA	NA	NA	NA	5.44	NA	NA	NA
Redox Potential	NA	NA	374	NA	NA	NA	NA	367	NA	NA	NA
Sulfide	NA	NA	112 J	NA	NA	NA	NA	29.6 J	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-03-08	SD-CB-03-09	SD-CB-03-10	SD-CB-03-11	SD-CB-03-12	SD-CB-04-01	SD-CB-04-02	SD-CB-04-03	SD-CB-04-04	SD-CB-04-05	SD-CB-04-06
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-03-08	SD-CB-03-09	SD-CB-03-10	SD-CB-03-11	SD-CB-03-12	SD-CB-04-01	SD-CB-04-02	SD-CB-04-03	SD-CB-04-04	SD-CB-04-05	SD-CB-04-06
Metals (mg/Kg)											
Aluminum	15000	9390	7080	6210	7560	13000	8730	13800	4670	10600	9840
Antimony	4.8 J	0.86 UJ	1.3 UJ	1.1 UJ	0.92 UJ	2.1	7.2	4.4	0.67 J	3.2 J	3.15
Arsenic	233	483	131	1410	188	81.1	89.8	48.8	16.5	88.6	325.5
Barium	95.5	64.9 J	29.3	52.4 J	65.8	70.1	67	72.7	20.9	109	37.75
Beryllium	0.85	0.77	0.44	0.47	0.46	1	0.63 J	0.97	0.25 J	0.79 J	0.55
Cadmium	6.4 J	12 J	4.4 J	10 J	3.2 J	7.1	2.4	2.3	0.68	8.9	1.55
Calcium	11100	9000	4080	6600	3410	6370	6440	4460	2070	11200	2505
Chromium	646	751	718	702	415	129	132	568	74	203	224.5
Cobalt	14.4	7.9 J	10.3 J	7 J	16.3 J	8.4	11.3	9.7	5.6	18.9	6.25
Copper	332	325 J	195 J	237 J	263 J	161	358	329	47.7	247	173
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	43400	66400	15100	86500	27000	10300	86200	15300	7950	20400	39000
Lead	301 J	260 J	114 J	166 J	149 J	292	248	409	59.6	358	171
Magnesium	4950	2410	1610	1780	2200	1520	1240	2650	1960	3210	2765
Manganese	353	212 J	43.6 J	105 J	986	199	181	311	281	2410	144.5
Mercury	1.1	0.7	0.81	0.65	3.6	0.49	2.2	1.2	0.22	0.8	1.05
Nickel	38.9 J	26.2 J	14.7 J	34.1 J	17.2 J	19.7	48.4	177	10.1	35.4	59.55
Potassium	1160 U	547 UJ	318 UJ	426 UJ	300 UJ	438	353	426	305	642	673
Selenium	5.4 J	6.6	2 J	6.8	3.5	2.9	4.5	3.3	0.58 U	4.4	2.6 J
Silver	0.4 U	R	0.12 U	R	R	0.29 J	11.5	0.2 U	0.19 U	0.53 U	0.25 J
Sodium	2830	1330 J	1020 J	1920 J	1200 J	726	838 J	682	324	1870	564.5
Thallium	1.7 U	0.86 U	0.52 U	0.92 U	0.51 U	0.59 U	5.3	0.6 U	0.58 U	1.6 U	3.1
Vanadium	97.4	97.4 J	34.2 J	49.9 J	26.3 J	77.9	72.1	85.4	18.5	63	35.35
Zinc	1260	537 J	568	1230 J	724	508	853	8750	201	970	307.5
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	298000	276000	171000	44300	202000	95200
Wet Parameters (mg/kg)											
pH	NA	NA	6.28	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	248	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	163 J	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-04-07	SD-CB-04-08	SD-CB-04-09	SD-CB-04-10	SD-CB-06-01	SD-CB-06-02	SD-CB-06-03	SD-CB-06-04	SD-CB-06-05	SD-CB-06-06	SD-CB-06-07
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-04-07	SD-CB-04-08	SD-CB-04-09	SD-CB-04-10	SD-CB-06-01	SD-CB-06-02	SD-CB-06-03	SD-CB-06-04	SD-CB-06-05	SD-CB-06-06	SD-CB-06-07
Metals (mg/Kg)											
Aluminum	9090	7420	10300	6920	10700	8860	5430	4130	6840	8000	6520
Antimony	1.3	3.3	6.7	3.5	1.8 U	1.7 U	7.8	1.9 U	1.8 U	2.2 J	1.8 U
Arsenic	43.7	129	151	141	65.5 J	83.8 J	257 J	24.9 J	167 J	97.7 J	45 J
Barium	35.8	41.4	84.6	72.3	46.3	35	50.4	8.4	59.1	59.1	59.5
Beryllium	0.38 J	0.33 J	0.77	0.55	0.66	0.41	0.33 J	0.22 U	0.22 J	0.23	0.2 U
Cadmium	0.41	3.2	7.2	5.8	34.6	4.9	10.6	0.88	4.4	11	11.2
Calcium	3380	3030	10400	8920	11400	8370	15300	1260	11200	8280	5910
Chromium	35.2	79.7	119	107	969	416	214	31.8	152	312	259
Cobalt	6.5	5.3	7.9	7.8	9	12.7	11.3	3.3	5.2	6.9	25
Copper	60.3	119	201	150	386	209	172	39.9	132	238	176
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	14200	12400	8820	25100	8690	11600	15600	5580	16100	13400	7280
Lead	123	108	199	117	328	224	149	19.9	91.4	166	133
Magnesium	3680	2310	2260	1740	2950	2330	2110	1470	2120	2230	1910
Manganese	140	123	72.5	177	81.4 J	64.9 J	56.6 J	50 J	133 J	66.9 J	74 J
Mercury	0.33	0.18	0.46	0.34	0.53	0.27	0.15	0.04 U	0.05 J	0.13	0.11
Nickel	12.4	11.9	21	17.7	49.4	22.2	24.4	6.2	17.7	18.1	17.5
Potassium	1160	664	608	496	648	380	527	253	484	609	390
Selenium	0.95 J	2.7	3.5	5.1 J	3 J	0.77 UJ	1.7 J	0.86 UJ	2 J	2.6 J	0.81 UJ
Silver	0.2 U	0.2 U	0.23 J	0.24 J	0.2 U	0.19 U	0.27 J	0.22 U	0.2 U	0.22 J	0.2 U
Sodium	465	435	467	562	839	613	1130	225	706	643	510
Thallium	0.61 U	0.6 U	0.6 U	0.61 U	4.8	2.7	6.1	1.5 U	3.2	3.2	2.4
Vanadium	34.5	36.6	72.1	57.6	103	91.8	84.4	10.4	38.2	72	50.2
Zinc	112	474	1120	679	1850 J	1990 J	2460 J	301 J	773 J	1210 J	3840 J
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	96500	130000	180000	247000	139000	127000	214000	10500	177000	174000	212000
Wet Parameters (mg/kg)											
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-06-08	SD-CB-06-09	SD-CB-06-10	SD-CB-07-01	SD-CB-07-02	SD-CB-07-03	SD-CB-07-04	SD-CB-07-05	SD-CB-07-06	SD-JP-01	SD-JY-06
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220 U
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1045
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1055
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-CB-06-08	SD-CB-06-09	SD-CB-06-10	SD-CB-07-01	SD-CB-07-02	SD-CB-07-03	SD-CB-07-04	SD-CB-07-05	SD-CB-07-06	SD-JP-01	SD-JY-06
Metals (mg/Kg)											
Aluminum	10800	4540	6125	9880	8400	13500	6080	5240	4710	15700	4680
Antimony	1.8 U	1.8 U	1.8 U	2.4 U	1.8 U	1.7 U	2 U	1.8 U	1.7 UJ	2.7 J	6.95
Arsenic	134 J	22.4 J	83.1 J	210 J	412 J	234 J	96.9 J	20.2 J	13.3 J	135	28.65 J
Barium	43.9	15	26.25	88	98.4	56.8	40.7	16.8	13.4	124	167 J
Beryllium	0.47	0.2 U	0.2 U	0.51 J	0.63	1.1	0.27 J	0.2 U	0.19 U	0.88	0.245 J
Cadmium	4.9	1	2.35	8.6	8.4	5.6	1.5	0.48	0.25 J	9.8	9.9
Calcium	3540	1780	2755	7200	5660	3720	3310	2420	1210	5850 J	10250
Chromium	178	59.1	212	557	256	784	336	136	53.1 J	423	287 J
Cobalt	10	3.2	5.2	40.6	21.7	15.5	10.7	4	2.6	20.8	6.4
Copper	188	53.1	202	304	312	437	106	58.6	56.5 J	435	180.5 J
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	3 J	NA
Iron	26800	7980	13900	39800	83000	31800	26500	12100	8280	35300 J	18900
Lead	138	39.6	80.7	389	327	377	134	58.9	26.2 J	436	389.5
Magnesium	2060	1640	1750	2400	2080	1870	2050	2470	2070	4840	1935
Manganese	107 J	61.4 J	92.95 J	523 J	990 J	506 J	645 J	102 J	84.3	763 J	278.5 J
Mercury	0.3	0.19	0.56	0.69	0.52	1.4	0.66	0.09 J	0.1 J	3.2	0.1 UJ
Nickel	14	7	9.75	38.9	31.8	23.3	14.3	9.7	7.8	35.5 J	60.8
Potassium	605	312	333.5	573	381	354	310	306	388	1190	452 J
Selenium	2 J	0.81 UJ	0.975 J	3.5 J	6.5 J	4.1 J	2.2 J	0.79 UJ	0.78 UJ	1.6 J	3.75 J
Silver	0.2 U	0.2 U	0.2 U	0.33 J	0.51	0.19 U	0.23 U	0.2 U	0.19 U	0.44 UJ	0.385 J
Sodium	457	269	434.5	1340	755	551	460	318	338	460	791.5 J
Thallium	4.7 J	1.8 J	2.5	NA	NA	NA	1.6 U	1.4 U	1.4 U	0.92 J	1.7 J
Vanadium	43.4	14.4	22.45	66.9	60.2	102	39.8	29	15.8	56.3	43.9
Zinc	1010 J	250 J	521 J	1810 J	1190 J	671 J	327 J	145 J	74.6	1920	1880
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	98600	86600	89300	167000	NA	NA	NA	NA	NA	NA	218500
Wet Parameters (mg/kg)											
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.84	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA	-56	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	356 J	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-JY-07	SD-JY-08	SD-JY-09	SD-JY-10	SD-JY-11	SD-JY-12	SD-JY-13	SD-JY-14	SD-JY-15	SD-KF-01	SD-KF-02
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	440 U	200 U	240 U	200 U	190 U	210 U	230 U	300 U	200 U	NA	NA
Aroclor 1254	2600	1700	1100	490	190 U	330	230 J	270 J	1200	NA	NA
Aroclor 1260	2400	1900	1900	430	190 U	360	260	300 J	1200	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-JY-07	SD-JY-08	SD-JY-09	SD-JY-10	SD-JY-11	SD-JY-12	SD-JY-13	SD-JY-14	SD-JY-15	SD-KF-01	SD-KF-02
Metals (mg/Kg)											
Aluminum	9230	13700	10500	8870	3950	17300	15200	8260	4230	4180	3510
Antimony	12.3	19.5	7.5	1.8 U	1.9 U	1.8 U	1.8 U	2.1 U	3.1	1.7 U	1.7 U
Arsenic	96.4 J	95.1 J	84.3 J	105	44.4	399	482	99.3	13.7 J	41.3	31.1
Barium	353 J	188 J	129 J	56.4	20	121	109	68.1	55.3	28.6	26.8
Beryllium	0.55	0.88	0.64	0.32 J	0.21 UJ	0.98 J	0.7 J	0.23 UJ	0.19 U	0.28	0.24
Cadmium	21	11.1	14.4	7	1.4	14.3	13.6	15.1	3.3 J	0.36 U	0.48 U
Calcium	6660	10700	8510	3450	1450	6600	11900	8710	1800	2320	1890
Chromium	1250 J	1710 J	746 J	1330	124	1240	1130	499	69.6	80.5	53
Cobalt	10.9	11.4	17.8	24.5	5.9	12.5	23.1	6.3	7.1	5.8	5.4
Copper	320 J	741 J	344 J	304 J	122 J	677 J	577 J	320 J	190	63.9	42.5
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	58700	24300	31400	17100 J	8240 J	29300 J	55100 J	10900 J	30000	13300	10700
Lead	1000	1210	736	346	47.6	486	367	251	400 J	109	72.4
Magnesium	2380	2850	3020	1770	1310	3270	3520	2180	2070	1820	1570
Manganese	297 J	332 J	396 J	319	103	268	555	209	171	290	258
Mercury	0.39 U	1.8	0.05 U	0.62	0.18 J	2.3	1.6	0.78	0.1 J	0.25 J	0.23 J
Nickel	150	82.9	56.3	20.6	8.7	35.1	35.2	25.1	42.8	6.4	5.8
Potassium	615 J	535 J	644 J	545	426	689	1090	663	562	316 J	324 J
Selenium	5.1 J	4.4 J	4.7 J	0.8 UJ	0.84 UJ	4.1 J	5.1 J	1.9 UJ	1.3 J	0.6 UJ	0.58 UJ
Silver	0.73	0.67	0.9	0.2 U	0.21 U	1.8	1.5	0.75	0.19 U	0.46 J	0.39 U
Sodium	755 J	818 J	687 J	493 J	459 J	771 J	1650 J	1430 J	360 J	244 J	212 J
Thallium	6.9 J	NA	3.6 J	2.5	1.5 U	2	2.4	1.6 U	2.1	1.7 U	1.7 U
Vanadium	90.6	78.8	68.8	29.8	10.2	62.9	53.1	31.9	18.7	19.5	14.5
Zinc	2720	2850	2330	1350	308	2020	2750	1570	417 J	263	224
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	176000	192000	187000	78500	15400	180000	167000	207000	45300	22100	14900
Wet Parameters (mg/kg)											
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-KF-03	SD-KF-04	SD-KF-05	SD-KF-06	SD-KF-07	SD-KF-08	SD-KF-09	SD-KF-10	SD-LF-01	SD-LF-02	SD-LM-01
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-KF-03	SD-KF-04	SD-KF-05	SD-KF-06	SD-KF-07	SD-KF-08	SD-KF-09	SD-KF-10	SD-LF-01	SD-LF-02	SD-LM-01
Metals (mg/Kg)											
Aluminum	9080	5590	5530	2860	2870	2550	6610	5830	19100	18700	14600
Antimony	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	R	R	R
Arsenic	90.4	53.5	46.7	16.6	13.2	11.7	49.6	34.3	100	81.9	60.1
Barium	54.7	44.7	42.5	19.4	17	15.9	41.4	40	141	149	173
Beryllium	0.6	0.35	0.39	0.16 U	0.18 U	0.11 U	0.51	0.33	1.1 J	0.95	0.71
Cadmium	1.1	0.91	1.1	0.22 UJ	0.33 U	0.12 U	0.81	0.89	10.5	7.6	5.7
Calcium	3550	2720	2680	1200	1410	1390	2750	2410	6400	6210	6870
Chromium	113	106	95.4	21.2	27	20.8	69.6	87.6	424	258	170
Cobalt	10	8.7	8.6	3.8	4.4	3.1	7.5	7.6	24.8	19.5	19.6
Copper	185	89.9	80	27.1	25	21.9	157	85	471	381	249
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	2.6 J	2.6 J	1.6 J
Iron	18700	14900	14700	7170	7240	6580	12300	13300	37900	37800	64900
Lead	157	129	171	36.9	31.6	43.4	83.4	134	861	594	478
Magnesium	2520	2090	2360	1380	1390	1230	1920	2230	5840	5910	12900
Manganese	503	409	356	205	214	83.5	368	255	445	539	534
Mercury	1.6 J	0.78 J	0.82 J	0.1 J	0.16 J	0.12 J	0.47 J	0.68	1.3 J	1.1 J	R
Nickel	10.1	8.4	10.5	3.2 U	2.5 U	5.3 U	7.6	12.6	43.4	36.8	31.2
Potassium	510 J	397 J	345 J	281 J	274 J	246	275 J	409	1610 J	1590	4390
Selenium	0.61 UJ	0.6 UJ	0.6 UJ	0.59 UJ	0.6 UJ	0.59 UJ	0.61 J	0.61 UJ	4.5 J	2.8 J	1.8 J
Silver	0.64 J	0.48 J	0.63 J	0.39 U	0.4 U	0.39 U	0.4 U	0.44 J	1.9 UJ	0.5 J	0.46 UJ
Sodium	286 J	268 J	259 J	161 J	150 U	147 U	230 J	154 U	R	R	R
Thallium	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	0.98 J	0.64 J	0.31 J
Vanadium	29.6	23.8	27.4	10.6	10.7	9.1	19.1	23.6	81.2	69.6	60.1
Zinc	461	397	424	152	146	115 J	359	324 J	2280	1650	1320
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	40000	21300	46650	3900 J	6400 J	2600 J	19900	34200	NA	NA	NA
Wet Parameters (mg/kg)											
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.44	7.04
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA	-44	-31
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	1710 J	1600 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LM-02	SD-LM-03	SD-LP-01	SD-LP-02	SD-LP-03	SD-LP-04	SD-LP-05	SD-LP-06	SD-LP-07	SD-LP-08	SD-LP-09
VOCs (ug/Kg)											
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)											
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)											
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LM-02	SD-LM-03	SD-LP-01	SD-LP-02	SD-LP-03	SD-LP-04	SD-LP-05	SD-LP-06	SD-LP-07	SD-LP-08	SD-LP-09
Metals (mg/Kg)											
Aluminum	25000	16900	5400	5200	9140	20400	7120	11000	4280	5630	4840
Antimony	R	R	2.6 UJ	1.8 UJ	1.9 UJ	5.1 J	1.9 UJ	1.9 UJ	1.8 UJ	1.8 UJ	1.7 UJ
Arsenic	144	80.4	20.7 J	48.1 J	30 J	485 J	60.1 J	25.95 J	23.6 J	81.8 J	74.9 J
Barium	368	206	26	31.6	45.5	37.6	31.7	51.5	14.4	18.8	21.9
Beryllium	1.4	0.95	0.29 U	0.27 J	0.57	0.92	0.37 J	0.69	0.2 U	0.38 J	0.26 J
Cadmium	12.6	11.2	1.3 J	1.1 J	3.3 J	5.6 J	2.5 J	3.8 J	1.4 J	3.5 J	1.2 J
Calcium	9180	6030	1630	2130	4220	3600	2160	3745	1250	2190	1210
Chromium	428	322	36.2 J	54.8 J	22.6 J	124 J	112 J	25.9 J	23.2 J	54.1 J	69.2 J
Cobalt	37.5	28.8	6.4	6.3	15.4	8.2	8.2	10.55	3.6	6.2	4.8
Copper	578	496	66.6 J	64.1 J	36.3 J	1560 J	192 J	70.35 J	65.7 J	235 J	142 J
Cyanide	0.29 UJ	0.31 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	75300	61800	10900	9710	10100	13600	12800	11500	7590	7630	9940
Lead	850	929	49.3 J	52.7 J	19.6 J	400 J	81.6 J	40.35 J	27.5 J	73 J	104 J
Magnesium	9910	9220	2470	1700	1990	2450	1640	2290	1640	1170	1250
Manganese	1550	822	131	185	333	256	195	244	87.8	104	271
Mercury	R	R	0.17 J	0.42	0.23 J	1.4	1	0.225 J	0.19 J	0.86	0.83
Nickel	58.3	37.1	9.7	7.7	16.7	30.6	9.8	10.95	5.9	7.2	6.9
Potassium	3040	2580	494	267	335	425	334	246.5	327	199	324
Selenium	2.3 J	2.7 J	1.2 UJ	0.97 J	0.83 U	3.1	0.83 U	0.84 U	0.8 U	0.78 U	1 J
Silver	0.5 J	0.81 J	0.29 U	0.2 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.2 U	0.19 U
Sodium	R	R	506	505	662	461	408	688.5	374	372	285
Thallium	0.67 J	0.7 J	2 U	1.8 J	2.4 J	2.9 J	2.5 J	1.325 J	1.6 J	1.8 J	1.8 J
Vanadium	124	83.8	14.6	13	21.9	33.7	14.2	19.05	10.5	10.1	11.1
Zinc	3230	2810	306	315	2800	800	656	2415	236	1210	248
AVS-SEM (mg/Kg)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)											
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	4800 J	18200	68200	53200	43400	49500	15100	29800	21700
Wet Parameters (mg/kg)											
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LP-10	SD-LP-11	SD-LP-12	SD-LP-13	SD-LP-14	SD-LP-15	SD-MP-01	SD-MP-02
VOCs (ug/Kg)								
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)								
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)								
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-LP-10	SD-LP-11	SD-LP-12	SD-LP-13	SD-LP-14	SD-LP-15	SD-MP-01	SD-MP-02
Metals (mg/Kg)								
Aluminum	6610	9930	4620	2300	2270	4600	9140	10600
Antimony	1.8 UJ	2.2 U	1.8 U	1.7 U	1.7 U	1.8 U	1.1 J	1.5 J
Arsenic	73.4 J	62	13.95	5.4	5.9	18.4	54.8	53.4
Barium	29.4	68.9	22	11.2	16.7	23.6	67.8	76.2
Beryllium	0.36 J	0.59	0.26	0.14	0.15	0.26	0.47	0.54
Cadmium	2.4 J	1.9	0.14 J	0.12 U	0.12 U	0.25 J	4.4	5.1
Calcium	1980	3900	1340	704	841	1690	3720 J	4480 J
Chromium	45.2 J	134	30.85	9.7	8.2	37	156	142
Cobalt	7.6	9.2	4.55	2.8	2.4	3.7	12.4	12.8
Copper	150 J	149	29.05	9.6	6.6	32.4	178	186
Cyanide	NA	NA	NA	NA	NA	NA	0.46 J	3.3 J
Iron	12300	23800	9210	4420	5420	8040	20100 J	20200 J
Lead	122 J	196	35.45	6.8	6.4	27.5	249	318
Magnesium	1650	3520	2345	1360	1160	2010	3310	3890
Manganese	205	182	107.5	47.5	112	117	308 J	290 J
Mercury	0.41	0.7	0.16 J	0.1 UJ	0.09 UJ	0.23 J	0.89	0.83
Nickel	8.5	15.2	9.1	3.5	0.59 J	3.3	21.6 J	24.2 J
Potassium	401	868 J	608.5 J	471 J	545 J	366 J	808	1170
Selenium	0.92 J	2.9 UJ	0.88 UJ	0.59 UJ	0.9 UJ	1.5 UJ	0.84 U	1 J
Silver	0.2 U	0.76 J	0.41 U	0.39 U	0.39 U	0.42 U	0.39 UJ	0.4 UJ
Sodium	443	463	296.5 J	322	292 J	374	279 J	369 J
Thallium	2 J	2.2 U	1.8 U	1.7 U	1.7 U	1.9 U	0.54 J	0.4 J
Vanadium	14	39.8	16.45	6.5	7.2	14.6	32.2	38.6
Zinc	632	625	98.1	15.2	22.6	113	930	945
AVS-SEM (mg/Kg)								
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)								
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	35400	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)								
pH	NA	NA	NA	NA	NA	NA	6.6	6.54
Redox Potential	NA	NA	NA	NA	NA	NA	-54	-41
Sulfide	NA	NA	NA	NA	NA	NA	553 J	899 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-NR-01	SD-NR-02	SD-NR-03	SD-NR-04	SD-NR-05	SD-TT-22-01	SD-TT-22-02	SD-TT-22-03	SD-TT-27-01
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-NR-01	SD-NR-02	SD-NR-03	SD-NR-04	SD-NR-05	SD-TT-22-01	SD-TT-22-02	SD-TT-22-03	SD-TT-27-01
Metals (mg/Kg)									
Aluminum	8110	9220	4980	6070	4880	2560	3110	13200	15800
Antimony	1.7 U	2.2 U	1.7 U	1.8 U	1.8 U	329 J	42 J	0.94 J	0.56 UJ
Arsenic	215	221	106	131	156	87.3 J	5.2 J	13.9 J	129
Barium	65.5	46.7	25.4	32.2	36.1	49.1	20.3	49.7	96.5
Beryllium	0.53	0.94	0.35	0.39	0.3	0.24	0.2	0.7	0.97
Cadmium	2.7	0.49 U	0.95	1.5	1.3	1.5 J	1.7 J	1.5 J	6.8 J
Calcium	3610	4060	1610	2500	2090	17500	4480	7570	5230
Chromium	255	258	156	158	104	7.1 J	85.3 J	27.1 J	300
Cobalt	9.3	6.3	5.8	5.6	5.2	2.4	1.3	7	13.7 J
Copper	251	365	140	155	99.3	29.6 J	9.6 J	37.5 J	365 J
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	25600	21000	11500	20200	18800	2970	2630	11900	31600
Lead	203	249	129	145	80.8	41000 J	2840 J	481 J	734 J
Magnesium	2570	2630	1500	2000	1770	1270	735	4460	4640
Manganese	317	152	95.4	133	122	39.8 J	34.8 J	194 J	493 J
Mercury	2.5	2.4	5.9	1.6	0.77	0.14 J	0.05 J	0.15	1.3
Nickel	16.1	12.3	8.7	9	7.8	4.8	3.9	18	27.5 J
Potassium	421	404	297	395	452	200	134 J	1360	898
Selenium	2.4 J	2.3 J	1.4 J	1.8 J	0.86 J	2 U	1 U	2.3 J	3.4 J
Silver	2.3	2.4	0.96	0.97	0.93	3.3 J	R	R	R
Sodium	182 J	190 U	298 J	342	294 J	700 J	827 J	992 J	1830 J
Thallium	1.7 U	2.2 U	1.8 U	1.8 U	1.8 U	1.2 U	0.61 U	0.6 U	0.57 U
Vanadium	29.9	32.6	17.1	22.1	16.4	32.4	8.5	50.1	70.9 J
Zinc	595 J	235 J	226 J	316 J	341 J	66.2 J	106 J	122 J	850
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	48900	59400	15900	24300	18800	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	NA	NA	NA	NA	NA	NA	5.95	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	324	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	52.3 J	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-27-02	SD-TT-27-03	SD-TT-27-04	SD-TT-28-01	SD-TT-28-02	SD-TT-28-03	SD-TT-29-01	SD-TT-29-02	SD-TT-29-03	TT-29-03-TR
VOCs (ug/Kg)										
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SVOCs (ug/Kg)										
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCB/Pesticides (ug/Kg)										
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA	
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA	
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-27-02	SD-TT-27-03	SD-TT-27-04	SD-TT-28-01	SD-TT-28-02	SD-TT-28-03	SD-TT-29-01	SD-TT-29-02	SD-TT-29-03	TT-29-03-TR
Metals (mg/Kg)										
Aluminum	7855	7080	7660	11400	16700	21600	13500 J	17300 J	17900 J	
Antimony	0.42 UJ	0.77 UJ	0.87 J	11.9 J	18.9 J	26.3 J	1.1 J	1.1 UJ	10.1 J	
Arsenic	34.45	142	12.3 J	811 J	459 J	987 J	629 J	561 J	1050 J	
Barium	387.5	296	46.9	81.8	97.9	104	73.25 J	79.3 J	60.3 J	
Beryllium	0.455	0.53	0.4	0.87	1	1.5	0.975	0.88	1.1	
Cadmium	2.35	2	3.7 J	12.7 J	14.2 J	17.1 J	11.15 J	13.6 J	15.2 J	
Calcium	2460	3730	1920	5900	7520	6910	5855	7610	7640	
Chromium	179	74.2	30.9 J	1390 J	4240 J	2820 J	2420 J	5500 J	1460 J	
Cobalt	4.8	6	6.7	32.5 J	23.8 J	32.2 J	36.4 J	35.7 J	31.8 J	
Copper	97.9 J	110 J	54.3 J	592 J	964 J	1330 J	704 J	893 J	1340 J	
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iron	15000	18000	13900	61300	50600	88300	60400	45200	115000	
Lead	202.5 J	135 J	122 J	338 J	269 J	657 J	316 J	649 J	538 J	
Magnesium	2275	2170	2880	1780	1870	2100	1905	3440	1970	
Manganese	110.9 J	135 J	153 J	789 J	599 J	663 J	700 J	470 J	1190 J	
Mercury	0.1415 J	0.14 J	0.15	4.2	5	3	6.9 J	5.6 J	13.3 J	
Nickel	12.5	14	14.8	23.4	27.5	29.7 J	29.85	34.8	26.3	
Potassium	400.5	379	784	576	619	625	434.5 J	804 J	473 J	
Selenium	2.05 J	2 J	1.9 J	7.5 J	8 J	10.2 J	8.15 J	6.3 J	8.6 J	
Silver	0.15 U	0.16 U	R	4 J	3.1 J	5.3 J	1.15	1.6	1.3	
Sodium	629.5 J	683 J	1370 J	4950 J	5130 J	5460 J	3210	3370	4530	
Thallium	0.63 U	0.7 U	0.6 U	0.71 U	0.8 U	0.7 U	7.6 J	5 J	14.3 J	
Vanadium	50.8	44	36	44	60.5	69.6 J	45.9 J	96.9 J	57.1 J	
Zinc	411.5 J	439	558 J	2230 J	2160 J	3160 J	2525	2250	3770	
AVS-SEM (mg/Kg)										
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TOC/TCO (mg/Kg)										
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Wet Parameters (mg/kg)										
pH	6.15	NA	NA	NA	NA	NA	6.92	NA	NA	
Redox Potential	231	NA	NA	NA	NA	NA	78.7	NA	NA	
Sulfide	50.4 J	NA	NA	NA	NA	NA	1100	NA	NA	

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-29-03-TR	SD-TT-30-01	SD-TT-30-01-TR	SD-TT-30-02	SD-TT-30-03	SD-TT-31-01	SD-TT-31-02	SD-TT-31-03	SD-TT-32-01
VOCs (ug/Kg)									
1,1,1-Trichloroethane	69 UJ	NA	110 J	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	R	NA	R	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	R	NA	R	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	R	NA	R	NA	NA	NA	NA	NA	NA
Acetone	1100 J	NA	7300 J	NA	NA	NA	NA	NA	NA
Benzene	R	NA	R	NA	NA	NA	NA	NA	NA
Carbon Disulfide	R	NA	R	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	R	NA	R	NA	NA	NA	NA	NA	NA
Ethylbenzene	R	NA	R	NA	NA	NA	NA	NA	NA
Methyl Acetate	R	NA	530 J	NA	NA	NA	NA	NA	NA
Methylene Chloride	57 U	NA	47 UJ	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	R	NA	R	NA	NA	NA	NA	NA	NA
Toluene	R	NA	22 J	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	R	NA	R	NA	NA	NA	NA	NA	NA
Trichloroethene	R	NA	R	NA	NA	NA	NA	NA	NA
Vinyl Chloride	R	NA	R	NA	NA	NA	NA	NA	NA
Xylene, m/p-	R	NA	R	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	R	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	R	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	R	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	R	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	R	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	33 J	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	47 J	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	R	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	R	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	R	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	R	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	R	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	40 J	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	R	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	R	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	R	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	R	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	71 J	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	R	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	R	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	R	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	R	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	R	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	55 J	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	R	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	R	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	R	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	R	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	R	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	R	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	R	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	R	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	R	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	R	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	R	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	R	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	R	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	R	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	R	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	R	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	R	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	R	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	R	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	R	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	R	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	R	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	R	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-29-03-TR	SD-TT-30-01	SD-TT-30-01-TR	SD-TT-30-02	SD-TT-30-03	SD-TT-31-01	SD-TT-31-02	SD-TT-31-03	SD-TT-32-01
Metals (mg/Kg)									
Aluminum	NA	16100 J	17900	5780 J	17400 J	9550 J	9130 J	14100 J	5080
Antimony	NA	0.9 J	23.6 J	1.3 J	0.53 UJ	0.57 UJ	0.44 UJ	0.61 UJ	0.71 UJ
Arsenic	NA	612 J	541	113 J	1080 J	8.5 J	11 J	30.3 J	94.2
Barium	NA	124 J	85	36.3 J	32.7 J	62.8 J	51.6 J	159 J	35.1
Beryllium	NA	1.1	1.3 J	0.4	0.91	0.47	0.46	0.7	0.29
Cadmium	NA	9.8 J	5.2	4 J	7.1 J	4.7 J	2.3 J	5.5 J	3.2 J
Calcium	NA	8710	5960	1650	3810	6540	4040	7730	2090
Chromium	NA	1250 J	2290	623 J	5310 J	138 J	123 J	295 J	430
Cobalt	NA	30.4 J	22.9 J	13.9 J	9.8	8.7 J	8.8 J	19.2 J	8.9 J
Copper	NA	674 J	835	253 J	3760 J	102 J	56.7 J	181 J	183 J
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	71600	51500	17900	12300	15600	15700	40700	14800
Lead	NA	420 J	664	248 J	425 J	332 J	190 J	309 J	152 J
Magnesium	NA	3900	3280	1310	1370	3630	3300	5280	1490
Manganese	NA	1910 J	980	205 J	206 J	213 J	361 J	1210 J	524
Mercury	NA	4.6 J	1.7 J	4.2 J	89.2 J	1.8 J	0.94 J	1.5 J	2.3
Nickel	NA	35.1	26.9	12.4	8	22.4	19.7	35.6	10.1 J
Potassium	NA	633 J	784 J	204 J	171	577 J	581 J	1020 J	264 UJ
Selenium	NA	9.3 J	1 U	2.7 J	3.8 J	2.1 J	1.8 J	4.1 J	2.2 J
Silver	NA	2.2	1 U	0.41 U	0.36 U	0.38 U	0.3 U	0.6 J	0.12 U
Sodium	NA	2820	468	929	1660	1730	912	2020	981 J
Thallium	NA	9.7 J	1.1 U	2.5 J	1.5	R	R	R	0.5 U
Vanadium	NA	59.8 J	66.2	24 J	21	43.3 J	38.1 J	56.5 J	21.7 J
Zinc	NA	1560	1370 J	644	1170	433	280	678	518
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	3.3936	NA	NA	NA	NA	NA	NA
Copper	NA	NA	434.3654	NA	NA	NA	NA	NA	NA
Lead	NA	NA	365.19	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	1.18354 J	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	13.082001	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	260.6	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	2.5359 U	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	766.84116 J	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	240000	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	NA	NA	NA	NA	NA	NA	6.32	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	195	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	84.9	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-32-02	SD-TT-32-02-TR	SD-TT-32-03	SD-TT-33-01	SD-TT-33-02	SD-TT-33-02-TR	SD-TT-33-03	SD-UF-01	SD-UF-02
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	69 UJ	NA	NA	NA	28 UJ	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	R	NA	NA	NA	R	NA	NA	NA
1,1-Dichloroethane	NA	R	NA	NA	NA	R	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	R	NA	NA	NA	R	NA	NA	NA
Acetone	NA	260 J	NA	NA	NA	200 J	NA	NA	NA
Benzene	NA	R	NA	NA	NA	R	NA	NA	NA
Carbon Disulfide	NA	R	NA	NA	NA	R	NA	NA	NA
cis-1,2-Dichloroethene	NA	R	NA	NA	NA	R	NA	NA	NA
Ethylbenzene	NA	R	NA	NA	NA	R	NA	NA	NA
Methyl Acetate	NA	R	NA	NA	NA	R	NA	NA	NA
Methylene Chloride	NA	47 U	NA	NA	NA	23 U	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	R	NA	NA	NA	R	NA	NA	NA
Toluene	NA	R	NA	NA	NA	R	NA	NA	NA
trans-1,2-Dichloroethene	NA	R	NA	NA	NA	R	NA	NA	NA
Trichloroethene	NA	R	NA	NA	NA	R	NA	NA	NA
Vinyl Chloride	NA	R	NA	NA	NA	R	NA	NA	NA
Xylene, m/p-	NA	R	NA	NA	NA	R	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Acenaphthene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Acenaphthylene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Anthracene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Benzo(a)anthracene	NA	400	NA	NA	NA	110 J	NA	NA	NA
Benzo(a)pyrene	NA	470 J	NA	NA	NA	140 J	NA	NA	NA
Benzo(b)fluoranthene	NA	810	NA	NA	NA	260	NA	NA	NA
Benzo(g,h,i)perylene	NA	230 J	NA	NA	NA	60 J	NA	NA	NA
Benzo(k)fluoranthene	NA	180 J	NA	NA	NA	99 J	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	370	NA	NA	NA	81 J	NA	NA	NA
Butylbenzylphthalate	NA	130 J	NA	NA	NA	130 U	NA	NA	NA
Carbazole	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Chrysene	NA	460	NA	NA	NA	160	NA	NA	NA
Dibenz(a,h)anthracene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Dibenzofuran	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Diethylphthalate	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Di-n-octylphthalate	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Fluoranthene	NA	1000	NA	NA	NA	290	NA	NA	NA
Fluorene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	210 J	NA	NA	NA	60 J	NA	NA	NA
Naphthalene	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
N-Nitrosodiphenylamine	NA	240 U	NA	NA	NA	130 U	NA	NA	NA
Phenanthrene	NA	450	NA	NA	NA	130 J	NA	NA	NA
Pyrene	NA	860	NA	NA	NA	270	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	0.94 UJ	NA	NA	NA	1.2	NA	NA	NA
4,4'-DDE	NA	0.78 J	NA	NA	NA	1.7	NA	NA	NA
4,4'-DDT	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Aldrin	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
alpha-BHC	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
alpha-Chlordane	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Aroclor 1248	NA	9.4 UJ	NA	NA	NA	11 U	NA	NA	NA
Aroclor 1254	NA	9.4 UJ	NA	NA	NA	11 U	NA	NA	NA
Aroclor 1260	NA	9.4 UJ	NA	NA	NA	11 U	NA	NA	NA
beta-BHC	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
delta-BHC	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Dieldrin	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Endosulfan I	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Endosulfan II	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Endosulfan Sulfate	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Endrin	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Endrin Aldehyde	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
Endrin Ketone	NA	0.94 UJ	NA	NA	NA	1.1 U	NA	NA	NA
gamma-BHC (Lindane)	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
gamma-Chlordane	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Heptachlor	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Heptachlor Epoxide	NA	0.47 UJ	NA	NA	NA	0.53 U	NA	NA	NA
Methoxychlor	NA	4.7 UJ	NA	NA	NA	5.3 U	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-TT-32-02	SD-TT-32-02-TR	SD-TT-32-03	SD-TT-33-01	SD-TT-33-02	SD-TT-33-02-TR	SD-TT-33-03	SD-UF-01	SD-UF-02
Metals (mg/Kg)									
Aluminum	5590	11500	9730	11700	8670	6640	11400	21700	24800
Antimony	2.3 UJ	9.1 J	1.5 UJ	3.5 J	9.1 J	6 J	4.3 J	R	R
Arsenic	198	313	403	275 J	180 J	221	288 J	127	171
Barium	47	87.2	112	72.1	41.2	56.8	78.4	164	147
Beryllium	0.41	0.82 J	0.62	0.67	0.39	0.48 J	0.72	1.2	1.5
Cadmium	6.5 J	5.7	4.7 J	7.4 J	5.6 J	2.8	6.4 J	12.8	17.5
Calcium	3860	4880	4960	5130	2390	2370	3690	8600	7650
Chromium	368	699	621	592 J	2200 J	420	735 J	545	954
Cobalt	25.9 J	26.4 J	27 J	20.7	18.8	14.1 J	27.4	28.3	31.7
Copper	278 J	403	351 J	489 J	444 J	270	426 J	553	699
Cyanide	NA	NA	NA	NA	NA	NA	NA	1	4.4
Iron	20400	33300	57200	32700	16800	34600	37800	44300 J	45700 J
Lead	172 J	288	251 J	210	155 J	141	285 J	860	1230
Magnesium	1600	2890	2420	2510	1330	1380	2560	6300	6550
Manganese	133	372	2040	752 J	154 J	776	693 J	878	478
Mercury	3.8	0.44	4.3	3.7	2.1 J	1.2	5.6 J	2 J	1.8 J
Nickel	21.6 J	21.3	19.3 J	16.6 J	11.6	9.2	22	47.5	53.8
Potassium	310 UJ	646 J	498 UJ	507	243	315 J	455	1590	1700
Selenium	2.6 J	1 U	5.4	4.2 J	2.7 J	0.99 U	4.6 J	2.2	2.7
Silver	0.18 U	1 U	R	2 J	1.1 J	0.99 U	2.3 J	1.2 J	1.4 J
Sodium	2450 J	400 U	1890 J	2790 J	2010 J	97.3 U	2440 J	636 J	855 J
Thallium	0.75 U	1.1 UJ	0.52 U	0.8 U	0.31 U	1.1 UJ	0.92 U	0.86	1.1
Vanadium	29.1 J	38.1 J	37 J	31.7	26.8	19.3	42.2	85.6 J	110 J
Zinc	1960	1250 J	1050	1040 J	1090 J	581 J	1050 J	2600	3270
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	3.5616	NA	NA	NA	2.2064	NA	NA	NA
Copper	NA	202.06335	NA	NA	NA	177.7492	NA	NA	NA
Lead	NA	160.82864	NA	NA	NA	104.03512	NA	NA	NA
Mercury	NA	0.82246 J	NA	NA	NA	1.14342 J	NA	NA	NA
Nickel	NA	11.550192	NA	NA	NA	6.062677	NA	NA	NA
SEM/AVS Ratio	NA	5.2	NA	NA	NA	4.64	NA	NA	NA
Sulfide	NA	89.559	NA	NA	NA	62.595	NA	NA	NA
Zinc	NA	725.79612	NA	NA	NA	400.55538	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	150000 J	NA	NA	NA	86000 J	NA	NA	NA
Wet Parameters (mg/kg)									
pH	6.35	NA	NA	NA	6.7	NA	NA	NA	NA
Redox Potential	146	NA	NA	NA	119	NA	NA	NA	NA
Sulfide	297 J	NA	NA	NA	37.7 J	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-UF-02-TR	SD-UF-03	SD-UM-01	SD-UM-02	SD-UM-03	SD-WG-01	SD-WG-02	SD-WG-03	SD-WG-04
VOCs (ug/Kg)									
1,1,1-Trichloroethane	79.5 J	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	37.5 J	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	R	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	R	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	565 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	R	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	R	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	R	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	R	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	150 J	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	73 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	R	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	R	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	R	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	R	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	R	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	R	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	290 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	510 UJ	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	270 J	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	510 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	270 J	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	3.05 J	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	42 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	42 U	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	42 U	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	21 U	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-UF-02-TR	SD-UF-03	SD-UM-01	SD-UM-02	SD-UM-03	SD-WG-01	SD-WG-02	SD-WG-03	SD-WG-04
Metals (mg/Kg)									
Aluminum	23350	22700	14300	23000	19400	13200	12400	20300	11500
Antimony	8.15	R	R	R	R	6.6 UJ	7 J	13 J	6.8 J
Arsenic	177.5	121	224.5	323	171	42.1 J	63.4 J	282 J	41.4 J
Barium	174	198	205.5	366	181	177	75.7	150	108
Beryllium	1.6 J	1.2	0.895	1.4	1.2	1.2	1.2	1.7	1.1
Cadmium	19.15	10.6	7.65	11.7	12	6.7	5.4	7.6	9.6
Calcium	8300	8310	3755	6580	5920	12000	14800	13000	13100
Chromium	805.5	389	302	356	307	687	455	1850	463
Cobalt	32.15 J	26	44.85	72.2	30.6	41.1	20.5	31.6	21.2
Copper	681.5	493	362.5	565	501	551	822	1170	630
Cyanide	NA	1.8	0.565 J	1 J	1.6 J	0.31 UJ	1.2 J	1.6 J	0.31 UJ
Iron	47100	46900 J	71150	106000	49200	11100	12400	41000	16600
Lead	1070	607	973.5	1290	802	470	436	648	421
Magnesium	6045	7350	3735	6040	5310	2010	1470	2010	1460
Manganese	568.5	923	1665	3060	1020	1910	1580	1160	971
Mercury	0.3 J	1.7 J	R	R	0.89 J	0.97 J	1.4 J	3 J	0.92 J
Nickel	46.95	46.4	40.25	64.3	46.7	37.5	29.7	44.7	30.3
Potassium	1975 J	1930	1042.5	1740	1510	483	377 J	623	351 J
Selenium	0.99 U	2.3	2.2 J	2.8 J	4 J	3.1	8.6	6.3 J	4.1
Silver	0.99 U	0.42 J	1.015 J	1.3 J	1.1 J	0.47 UJ	0.43 UJ	0.41 UJ	0.47 UJ
Sodium	1165	663 J	R	R	R	478 J	603 J	627 J	538 J
Thallium	1.1 U	0.68 J	0.49 J	0.59 J	0.78 J	0.7 J	0.37 J	0.61 J	0.61 J
Vanadium	95.3	78.6 J	118.5	180	114	45.7	29.1	75.1	35.6
Zinc	3035 J	2060	1995	3090	2760	702	925	1650	1550
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	11.4576	NA	NA	NA	NA	NA	NA	NA	NA
Copper	316.055375	NA	NA	NA	NA	NA	NA	NA	NA
Lead	657.1866	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.06018 J	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	19.5877875	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	2.45	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	504.291 J	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	1780.4234 J	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	360000	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	6.25	6.575	NA	NA	NA	NA	NA	NA
Redox Potential	NA	-42	-64.5	NA	NA	NA	NA	NA	NA
Sulfide	NA	975 J	2670 J	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-05	SD-WG-06	SD-WG-07	SD-WG-08	SD-WG-09	SD-WG-10	SD-WG-11	SD-WG-12	SD-WG-13
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-05	SD-WG-06	SD-WG-07	SD-WG-08	SD-WG-09	SD-WG-10	SD-WG-11	SD-WG-12	SD-WG-13
Metals (mg/Kg)									
Aluminum	5110	15000	25300	14300	17050	19000	8310	12000	25700
Antimony	2.5 UJ	10 J	24.5 J	8.5 J	9.5 J	11.4 J	2.4 UJ	6.2 UJ	4.3 UJ
Arsenic	57.9 J	311 J	1450 J	88.3 J	118.15 J	53.1 J	17.4 J	31.2 J	25.5 J
Barium	47	101	126	82.3	88.3	68.8	37.7	57.7	52.2
Beryllium	0.61	1.5	2.2	1.1	1.4	1.3	0.56	0.85	2.6
Cadmium	3.3	7.5	5.6	9.5	4.45	12.3	3.7	4.2	5.1
Calcium	9470	14200	12800	16700	17350	13400	4060	11700	7120
Chromium	132	793	1940	414	380.5	2570	131	920	240
Cobalt	6.9	13.5	44.1	13.7	15.45	15.9	8.4	8.1	7
Copper	184	694	1330	635	445	1010	169	736	361
Cyanide	0.39 J	1.8	1.6 J	1.3 J	1.55 J	0.72 J	0.19 UJ	0.4 UJ	0.33 UJ
Iron	10200	25300	119000	13300	24850	15200	11200	9410	6040
Lead	154	722	810	586	750	775	136	621	324
Magnesium	598	1300	1550	1770	1825	3140	2480	1720	684
Manganese	216	1100	1880	1330	608	801	175	207	91.9
Mercury	0.17	1.3 J	11.6 J	3.3 J	0.66 J	0.6 J	0.29 J	0.84 J	0.34 J
Nickel	10	26.3	35.6	30	31.3	41.4	15.1	22.9	22
Potassium	117 J	334 J	401 J	328 J	335.5 J	813	676	377 J	173 J
Selenium	1.9 J	6.2	6.5	3.8	6.25 J	5.7	1.5 J	3.2	4.1
Silver	0.4 UJ	0.46 UJ	0.43 UJ	0.39 UJ	0.44 UJ	0.46 UJ	0.41 UJ	0.45 UJ	0.42 UJ
Sodium	228 J	539 J	553 J	557 J	555 J	647 J	159 J	514 J	585 J
Thallium	0.24 J	0.44 J	0.38 J	0.51 J	0.42 J	0.59 J	0.28 U	0.4 J	0.29 J
Vanadium	25	97.4	70.9	50.9	104.35	97.3	29.6	81.9	36.2
Zinc	491	910	2000	1450	788	2080	521	606	825
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	5.77	NA	NA	NA	NA	5.92	5.15	NA	NA
Redox Potential	-4	NA	NA	NA	NA	-19	-21	NA	NA
Sulfide	78.4 J	NA	NA	NA	NA	868 J	206 J	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-14	SD-WG-15	SD-WG-16	SD-WG-17	SD-WG-18	SD-WG-19	SD-WG-20	SD-WH-01	SD-WH-02
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WG-14	SD-WG-15	SD-WG-16	SD-WG-17	SD-WG-18	SD-WG-19	SD-WG-20	SD-WH-01	SD-WH-02
Metals (mg/Kg)									
Aluminum	16000	8010	3680	3140	18000	14500	16250	14000	17500
Antimony	4.7 UJ	1 U	1.6 U	0.75 J	2.5 J	R	R	11.4	15.1 J
Arsenic	24.4 J	8.6 J	10 J	6.6	17.4	16.8	16.8	30	424
Barium	76	14.1	28.2	18.2	77.7	92.5	105.5	89.4	92.6
Beryllium	2.1	0.33	0.27 J	0.17 U	0.97	0.73	0.83	1.4	1.4
Cadmium	5.5	0.49	0.89	0.46	2.4	2.5	4.85	15.1 J	8.1 J
Calcium	10300	1910	2100	1200	4750	4080	4415	17500	12600
Chromium	227	14.3	25.1	18.2	123	78.8	92.9	301	1170
Cobalt	9	3.5 J	6.2	2.7 J	8.5	11.3	22.85	16	15.9
Copper	302	18.8	33.2	21.3	159	129	180.5	561	572
Cyanide	0.51 J	0.33 J	0.32 J	0.4 J	0.94 J	2.5 J	1.5 J	0.69	1
Iron	9710	5330	4920	4920	17900	26400	25500	8360	65300
Lead	363	23.9	92.9	79.6	449	453	490	771	1030
Magnesium	1220	454	255 J	184 J	4610	4460	5110	3020	3260
Manganese	234	139	223	89.5	199	359	797.5	154	501
Mercury	0.31 J	0.09 U	0.22	0.1 J	0.5 J	0.62	0.505	0.73 J	0.98 J
Nickel	25	4.8	8.2	4.8	36.8	44.2	79.2	44	31.3
Potassium	272 J	95.4 J	84 J	89.6 J	823	1010	1035	650	924
Selenium	2.6	1.6 U	0.91	0.66 J	2 J	1.6 J	1.32 J	3.2 J	3.7 J
Silver	0.44 UJ	0.36 UJ	0.41 UJ	0.42 UJ	0.64 J	0.72 J	2.95 J	0.46 J	0.44 UJ
Sodium	652 J	78.9 J	112 J	R	R	R	R	519	656
Thallium	0.34 J	0.24 U	0.23 U	0.25 U	0.27 U	0.26 U	0.27 U	1.5	0.53 J
Vanadium	77.5	10.3	17	14.9	75	64.8	68.75	67.7	123
Zinc	765	88	157	80.1	398	404	723	3230	1550
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	NA	NA	NA	NA	NA	5.645	6.14	NA
Redox Potential	NA	NA	NA	NA	NA	NA	-9	-36	NA
Sulfide	NA	NA	NA	NA	NA	NA	104.75 J	674 J	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WH-03	SD-WH-04	SD-WH-05	SD-WH-06	SD-WH-07	SD-WH-07-TR	SD-WH-08	SD-WH-09	SD-WH-10
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	140 U	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	R	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	R	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	R	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	2700 J	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	R	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	R	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	R	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	R	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	140 U	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	R	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	R	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	R	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	R	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	R	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	660 J	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	600 U	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	49 U	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	49 U	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	49 U	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	4.9 U	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	25 U	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WH-03	SD-WH-04	SD-WH-05	SD-WH-06	SD-WH-07	SD-WH-07-TR	SD-WH-08	SD-WH-09	SD-WH-10
Metals (mg/Kg)									
Aluminum	8870	17400	15900	5420	5180	6705	9400	4720	12550
Antimony	18.6 J	34.5 J	20.6 J	31.7 J	22 J	24.35	9.9	35.4 J	15.1 J
Arsenic	123	210	370	22.6	12.5	24.2	4.7	19.2	15 J
Barium	53.9	107	132	54.3	70.9	75.85	85.5	67.5	67.05
Beryllium	0.7	1.6	1.3	0.36 J	0.45	0.685 J	1.3	0.28 J	0.695
Cadmium	4.6 J	11.1 J	14.3 J	1.6 J	1.9 J	3	0.87 J	2.5 J	1.6 J
Calcium	10500	11800	14700	12600	14700	14350	14300	18700	12200
Chromium	212	1050	855	57	27.2	45.85	17.7	21.9	53.45
Cobalt	12.3	30.3	34.4	4.5	3 J	8.15	2.4 J	4.1 J	3.1 J
Copper	237	548	513	59	43.9	66.55	23.8	52	50.35
Cyanide	0.49	0.36 U	1.1	0.6	0.53	NA	0.42	0.42	0.26 J
Iron	20800	42600	76600	10400	8870	12400	4020	12300	10250
Lead	1220	1770	942	2540	2380	1900	1050	1130	1940
Magnesium	1700	2410	3250	1330	1140	1380	1300	1750	1910
Manganese	176	612	747	180	105	101.2	73	51.9	52.2
Mercury	0.54 J	0.66 J	0.82 J	0.57 J	0.4 J	0.02 U	0.25 J	R	0.425 J
Nickel	18.9	43.7	42.4	12.9	13	14.5	11.8	14.4	15.1
Potassium	354 J	656	851	240 J	178 J	227 J	222 J	347 J	385.5 J
Selenium	2.9 J	4.1 J	4.1 J	1.7 J	2.3 J	1.55 J	1.6 J	1.9 J	2.95 J
Silver	0.42 UJ	0.41 UJ	0.45 UJ	0.43 UJ	0.45 UJ	1 U	0.46 UJ	0.44 UJ	0.4 UJ
Sodium	394 J	682	865	574	658	939.5	554	973	570.5 J
Thallium	0.36 J	0.8	1.1	0.32 J	0.3 J	1.1 UJ	0.27 U	0.36 J	0.2225 J
Vanadium	58.9	163	100	46.5	50.8	57.1	32.3	64.5	67.75
Zinc	634 U	1750	2720	241 U	272 U	543 J	125 U	289 U	181
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	3.5728	NA	NA	NA
Copper	NA	NA	NA	NA	NA	57.51195	NA	NA	NA
Lead	NA	NA	NA	NA	NA	1359.45992	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	0.79237 J	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	17.853498	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	3.31	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	159.0555	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	604.73418	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	815000 J	NA	NA	NA
Wet Parameters (mg/kg)									
pH	NA	NA	NA	NA	NA	NA	NA	NA	5.65
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	-43
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	183 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-01	SD-WS-02	SD-WS-03	SD-WS-04	SD-WS-05	SD-WS-06	SD-WS-07	SD-WS-08	SD-WS-09
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-01	SD-WS-02	SD-WS-03	SD-WS-04	SD-WS-05	SD-WS-06	SD-WS-07	SD-WS-08	SD-WS-09
Metals (mg/Kg)									
Aluminum	8490	11900	7490	5850	7560	3840	3570	13500	10600
Antimony	4.3 J	5.1 J	1.2 J	3.1 J	4.5 J	2.5 J	2.4 J	7.2 J	4.1 J
Arsenic	240	235	17.7	123	214	79.8	38.6	339	194
Barium	115.65	133	60.8	89.4	106	123	107	200	135
Beryllium	0.615	0.73	0.31 J	0.35 J	0.51	0.27 J	0.2 J	0.87	0.61
Cadmium	8.75	12.9	1.3	4.8	10.6	6.3	3.7	16.7	7.8
Calcium	7875 J	9790 J	8060 J	14800 J	14200 J	14900 J	16900 J	18300 J	14700 J
Chromium	637	875	67.7	252	459	257	68.3	1320	481
Cobalt	20	19	5.5	11.1	18.8	16.1	7.9	44.8	23.2
Copper	337	436	68	188	362	171	89.6	686	318
Cyanide	3.1 J	2.6 J	1.4 J	3.7 J	1.8 J	1.4 J	2.1 J	12.1 J	2.3 J
Iron	37050 J	43400 J	12800 J	20400 J	30400 J	20100 J	15300 J	52400 J	35600 J
Lead	308	360	165	194	251	170	177	490	352
Magnesium	2165	3180	2560	2260	2460	1560	1870	3570	3690
Manganese	1073 J	657 J	413 J	917 J	1020 J	1420 J	1120 J	1170 J	1210 J
Mercury	1.55 J	1.8 J	0.22 J	0.88 J	R	0.55 J	0.34 J	R	1.3 J
Nickel	33.75 J	40.6 J	18 J	20.2 J	28.1 J	21.9 J	17.4 J	46.3 J	34.6 J
Potassium	520 J	1000	647	915	1020	429 J	447	1270	1160
Selenium	2.4 J	2.6 J	0.79 J	1.4 J	1.8 J	1.6 J	1.1 J	3.8 J	1.8 J
Silver	0.43 UJ	0.43 UJ	0.33 UJ	0.44 UJ	0.42 UJ	0.44 UJ	0.44 UJ	0.44 UJ	0.47 UJ
Sodium	800.5	901	631	898	1970	980	1100	1310	948
Thallium	0.5 J	0.93 J	0.23 U	0.5 J	1.1 J	0.53 J	0.26 U	2.2 J	0.81 J
Vanadium	41.45	48.7	24.7	26.8	34.5	22.2	22.5	56.1	43.5
Zinc	1305	2140	299	1010	1820	1200	731	3440	1750
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)									
pH	5.66	NA	NA	NA	NA	NA	NA	NA	6.14
Redox Potential	-3	NA	NA	NA	NA	NA	NA	NA	-79
Sulfide	91.8 J	NA	NA	NA	NA	NA	NA	NA	549 J

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-10	SD-WW-01	SD-WW-02	SD-WW-03	SD-WW-04	SD-WW-05	SD-WW-06	SD-WW-06-TR	SD-WW-07
VOCs (ug/Kg)									
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA	110 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA	NA	R	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA	NA	R	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	R	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	410 J	NA
Benzene	NA	NA	NA	NA	NA	NA	NA	R	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	R	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	R	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA	NA	R	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA	NA	R	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	60 U	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	R	NA
Toluene	NA	NA	NA	NA	NA	NA	NA	R	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	R	NA
Trichloroethene	NA	NA	NA	NA	NA	NA	NA	R	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	R	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA	NA	R	NA
SVOCs (ug/Kg)									
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	R	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	330 J	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	610 J	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	300 J	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	500 J	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	610 U	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	480 J	NA
PCB/Pesticides (ug/Kg)									
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	5 U	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	2.1 J	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Aldrin	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
alpha-BHC	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA	NA	50 U	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA	NA	50 U	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA	NA	50 U	NA
beta-BHC	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
delta-BHC	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Dieldrin	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Endrin	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA	NA	5 U	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA	NA	5 U	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Heptachlor	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	2.5 U	NA
Methoxychlor	NA	NA	NA	NA	NA	NA	NA	25 U	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WS-10	SD-WW-01	SD-WW-02	SD-WW-03	SD-WW-04	SD-WW-05	SD-WW-06	SD-WW-06-TR	SD-WW-07
Metals (mg/Kg)									
Aluminum	12200	13450	10700	9740	10200	8590	8510	8280	8990
Antimony	5.1 J	R	R	R	R	R	R	57.3 J	R
Arsenic	198	45.95 J	50.3 J	48.2 J	44.8 J	37.6 J	42.3 J	4.4 J	42.6 J
Barium	123	155.5	129	152	204	170	187	125	167
Beryllium	0.81	0.885	0.87	0.5 U	0.54 U	0.22 U	0.073 U	0.77 J	0.19 U
Cadmium	8.1	5.5 J	9.6 J	4.5 J	2.9 J	3 J	3.6 J	3.2	3.9 J
Calcium	15500 J	10270	13900	9840	9800	11000	13700	16200	15100
Chromium	623	8135 J	6790 J	3670 J	7250 J	15900 J	23400 J	6550	17400 J
Cobalt	23.5	10.95	11.5	20.5	19.4	11.4	7.7	6.8	20.5
Copper	407	544	598	592	265	263	335	210	327
Cyanide	5.6 J	NA	NA	NA	NA	NA	NA	NA	NA
Iron	30200 J	12800	9870	20000	20000	8050	7700	8430	10800
Lead	481	401 J	247 J	176 J	203 J	232 J	321	369	495 J
Magnesium	3870	1805	1390	1200	2200	1710	2070	2520	2400
Manganese	1360 J	417.5	535	803	543	363	234	186	139
Mercury	1.2 J	1.8	1.4	0.7	0.85	0.96	1.1	0.09 U	1.2
Nickel	40.5 J	28.65	18.9	20.7	27.2	20.3	21.5	21.9	23.4
Potassium	988	387.5	276	235	376	294	334	372 J	354
Selenium	3.4 J	5.95 J	3.7 J	4.9 J	5.1 J	5.3 J	5.7 J	1 U	5.1 J
Silver	0.42 UJ	0.7 UJ	0.56 UJ	0.84 U	0.87 U	0.54 UJ	0.66 UJ	1 U	0.67 U
Sodium	836	1530	1980	1480	1500	1400	1570	579 U	1940
Thallium	0.76 J	0.99 J	0.65 UJ	1.4 J	0.92 J	0.86 J	1.9 J	1.1 UJ	2.2 J
Vanadium	53.2	85.55	39.8	63.1	103	57	52.7	56.9	60
Zinc	1720	955.5	1280	1020	1030	920	1170	888 J	1400
AVS-SEM (mg/Kg)									
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	3.2144	NA
Copper	NA	NA	NA	NA	NA	NA	NA	82.84845	NA
Lead	NA	NA	NA	NA	NA	NA	NA	236.68456	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	1.56468 J	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	13.856709	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA	NA	23.75	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	20.865	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	906.2151	NA
TOC/TCO (mg/Kg)									
Total Combustible Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	760000 J	NA
Wet Parameters (mg/kg)									
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WW-08	SD-WW-08-02	SD-WW-09	SD-WW-10	SD-WW-11	SD-WW-12
VOCs (ug/Kg)						
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroetha	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene(total)	NA	NA	NA	NA	NA	NA
2-Butanone	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Ethylbenzene	NA	NA	NA	NA	NA	NA
Methyl Acetate	NA	NA	NA	NA	NA	NA
Methylene Chloride	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA
Toluene	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Trichloroethene	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA
Xylene, m/p-	NA	NA	NA	NA	NA	NA
SVOCs (ug/Kg)						
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA
Aldrin	NA	NA	NA	NA	NA	NA
alpha-BHC	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA	NA
beta-BHC	NA	NA	NA	NA	NA	NA
delta-BHC	NA	NA	NA	NA	NA	NA
Dieldrin	NA	NA	NA	NA	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA
Endrin	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	NA	NA	NA	NA	NA	NA
Endrin Ketone	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA
Methoxychlor	NA	NA	NA	NA	NA	NA

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TABLE 2-161
SEDIMENT DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-WW-08	SD-WW-08-02	SD-WW-09	SD-WW-10	SD-WW-11	SD-WW-12
Metals (mg/Kg)						
Aluminum	9750	6160	11300	12900	13600	13800
Antimony	R	1 UJ	R	R	R	R
Arsenic	38.3 J	27.9	54.6 J	52.8 J	37.4 J	44.2 J
Barium	259	124	281	267	3420	577
Beryllium	0.065 U	0.1 U	0.65 U	0.64 U	0.32 U	0.27 U
Cadmium	4.2 J	4.1	5.4 J	3.6 J	0.048 UJ	2.8 J
Calcium	12400	8950	9770	9330	4220	6580
Chromium	24600 J	10300	9520 J	8190 J	13000 J	18400 J
Cobalt	9.3	6.9	21	13.8	6.4	8.4
Copper	391	249 J	310	383	178	244
Cyanide	NA	NA	NA	NA	NA	NA
Iron	10600	6740	16400	14100	11200	10700
Lead	393 J	243 J	315 J	329 J	147 J	344 J
Magnesium	2220	1840	2190	2400	2250	2540
Manganese	196	149 J	445	328	95.4	175
Mercury	1.4	0.7	1.1	1.3	0.46	0.74
Nickel	28.9	20.7	27.8	25	20.1	23.2
Potassium	321	361	364	484	465	441
Selenium	5.5 J	2.5 U	5 J	4.9 J	3.2 J	4.4 J
Silver	1.2 U	0.35 U	0.85 U	0.75 U	0.52 U	0.6 UJ
Sodium	2350	1600 J	1910	1650	1850	1820
Thallium	2.7 J	1.5 U	1.4 J	0.67 UJ	1.2 J	1.3 J
Vanadium	79	77.1	84.1	74.2	55.9	67.8
Zinc	1890	1000	1360	1180	1460	1380
AVS-SEM (mg/Kg)						
Arsenic	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
SEM/AVS Ratio	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA
TOC/TCO (mg/Kg)						
Total Combustible Organics	NA	NA	NA	NA	NA	NA
Total Organic Carbon	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/kg)						
pH	NA	6.03	NA	NA	NA	NA
Redox Potential	NA	341	NA	NA	NA	NA
Sulfide	NA	180 J	NA	NA	NA	NA

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TABLE 2-162
SURFACE SOIL DATA SUMMARY - STATION CB-05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4820		7240		SO-CB-05-08	10 / 10	N/A	5769
Antimony	0.67	J	1.6		SO-CB-05-05	6 / 10	0.65 - 1.9	0.9
Arsenic	16.8		86.3		SO-CB-05-05	10 / 10	N/A	30
Barium	17.1		40.1		SO-CB-05-08	10 / 10	N/A	27
Beryllium	0.26	J	0.38	J	SO-CB-05-08	8 / 10	0.21 - 0.22	0.3
Cadmium	0.22	J	1.1		SO-CB-05-06	9 / 10	0.22	0
Calcium	1240		4010		SO-CB-05-06	10 / 10	N/A	2171
Chromium	13.4		211		SO-CB-05-03	10 / 10	N/A	56
Cobalt	3.7		9.5		SO-CB-05-05	10 / 10	N/A	6
Copper	26.5		82.9		SO-CB-05-05	10 / 10	N/A	40
Iron	6690		14500		SO-CB-05-05	10 / 10	N/A	10107
Lead	28.9		90.9		SO-CB-05-05	10 / 10	N/A	50
Magnesium	1620		3020		SO-CB-05-01	10 / 10	N/A	2260
Manganese	128	J	309		SO-CB-05-05	10 / 10	N/A	194
Mercury	0.07	J	0.6		SO-CB-05-05	10 / 10	N/A	0.2
Nickel	8.5		11.3		SO-CB-05-08	10 / 10	N/A	10
Potassium	421		1000		SO-CB-05-02	10 / 10	N/A	720
Selenium	1.1	J	1.2	J	SO-CB-05-05	2 / 10	0.65 - 0.83	0.5
Silver						0 / 10	0.21 - 0.27	0.1
Sodium	276.5		391		SO-CB-05-08	10 / 10	N/A	337
Thallium	0.72	J	1.85	J	SO-CB-05-10	4 / 10	0.65 - 0.8	0.8
Vanadium	17.2		34.9		SO-CB-05-05	10 / 10	N/A	23
Zinc	60.7	J	259		SO-CB-05-06	10 / 10	N/A	130
Total Organic Carbon	19700		92100		SO-CB-05-05	10 / 10	5950 - 8850	54655

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-163
SURFACE SOIL DATA SUMMARY - STATION DA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	5160		10900		SO-DA-03	5 / 5	N/A	6979
Antimony						0 / 5	1.9 - 2.2	1.0
Arsenic	21.8	J	272	J	SO-DA-03	5 / 5	N/A	99
Barium	11		90.6		SO-DA-03	5 / 5	N/A	35
Beryllium	0.24	J	0.53		SO-DA-03	2 / 5	0.21 - 0.24	0.2
Cadmium	0.3	J	4.6	J	SO-DA-03	4 / 5	0.23	1
Calcium	556		4060		SO-DA-03	5 / 5	N/A	1572
Chromium	32.6	J	550	J	SO-DA-03	5 / 5	N/A	193
Cobalt	2.8		25.7		SO-DA-03	5 / 5	N/A	9
Copper	41.4	J	320	J	SO-DA-03	5 / 5	N/A	145
Iron	9240		37000		SO-DA-03	5 / 5	N/A	16868
Lead	67.4	J	274	J	SO-DA-03	5 / 5	N/A	134
Magnesium	1360		2630		SO-DA-02	5 / 5	N/A	1923
Manganese	58.1		2850		SO-DA-03	5 / 5	N/A	791
Mercury	0.31	J	3.4		SO-DA-03	5 / 5	N/A	1.2
Nickel	6.5		22.2		SO-DA-03	5 / 5	N/A	11
Potassium	300		487		SO-DA-03	5 / 5	N/A	394
Selenium	1.2	J	2	J	SO-DA-03	3 / 5	0.86	1.1
Silver	0.28	J	0.28	J	SO-DA-03	1 / 5	0.21 - 0.24	0.1
Sodium	272		559		SO-DA-03	5 / 5	N/A	358
Thallium	1.6	J	3.4		SO-DA-03	2 / 5	1.5 - 1.7	1.5
Vanadium	14.1		41.9		SO-DA-03	5 / 5	N/A	27
Zinc	53.1		843		SO-DA-03	5 / 5	N/A	275
Total Organic Carbon	13100		87000		SO-DA-04	5 / 5	5880 - 10100	35440

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-164
SURFACE SOIL DATA SUMMARY - DAVIDSON PARK
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	5940	J	10600	J	SO-DP-09	26 / 26	7.4	7886
Antimony						0 / 26	2 - 4.9	0.70
Arsenic	6.05	J	219		SO-DP-26	26 / 26	5.6	33
Barium	20.3		152.5		SO-DP-26	26 / 26	0.1	43
Beryllium	0.44		0.44		SO-DP-26	1 / 9	0.05 - 0.2	0.074
Cadmium	0.6475	J	0.6475	J	SO-DP-26	1 / 26	0.1 - 0.5	0.090
Calcium	1140	J	7240		SO-DP-26	26 / 26	9.7	2664
Chromium	24.4	J	316	J	SO-DP-26	26 / 26	1.5	110
Cobalt	3.9		13.3		SO-DP-03	26 / 26	1.7	7.1
Copper	20.8		298.5		SO-DP-26	26 / 26	0.6	80
Iron	7890		134000	J	SO-DP-16	26 / 26	29.5	17064
Lead	25		261		SO-DP-12	26 / 26	2.6	119
Magnesium	1370		5020		SO-DP-03	26 / 26	14.6	2502
Manganese	84.8	J	818		SO-DP-25	26 / 26	0.2	264
Mercury	0.22	J	2.35		SO-DP-26	21 / 26	0.1 - 0.26	0.77
Nickel	6.5	J	21	J	SO-DP-16	26 / 26	1	12
Potassium	190		755		SO-DP-25	26 / 26	41	416
Selenium	0.93	J	6.1		SO-DP-16	10 / 26	0.81 - 3.9	1.0
Silver	0.41	J	1.3		SO-DP-11	24 / 25	0.42 - 1.8	0.69
Sodium	216	J	216	J	SO-DP-26	1 / 25	6.4 - 268	89
Thallium	1.775	J	3.6	J	SO-DP-16	10 / 26	1.6 - 7.8	1.6
Vanadium	15.6		58.1		SO-DP-12	26 / 26	1.4	28
Zinc	55.8		44800		SO-DP-16	26 / 26	0.1 - 3.3	1924
Wet Parameters - mg/Kg								
Chromium VI						0 / 5	2.142 - 2.896	1.2
pH	4.38		6.31		SO-DP-19	5 / 5	N/A	5.5
Redox Potential	2	J	54	J	SO-DP-12	5 / 5	N/A	19
Sulfide	9.58	J	19.35	J	SO-DP-06	5 / 5	1.87 - 2.1	13

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-165
SURFACE SOIL DATA SUMMARY - STATION KFSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	3840		7550		SO-KF-05	10 / 10	N/A	5604
Antimony						0 / 10	1.7 - 1.8	0.9
Arsenic	19.9		54.55		SO-KF-05	10 / 10	N/A	40
Barium	27.3		77.05		SO-KF-05	10 / 10	N/A	51
Beryllium	0.21		0.485	J	SO-KF-05	10 / 10	N/A	0.4
Cadmium	0.86		2.05	J	SO-KF-05	7 / 10	0.44 - 0.76	1
Calcium	1620		3570		SO-KF-05	10 / 10	N/A	2827
Chromium	48.4		141		SO-KF-02	10 / 10	N/A	102
Cobalt	5.5		13.35		SO-KF-05	10 / 10	N/A	9
Copper	50.6		143.5		SO-KF-05	10 / 10	N/A	91
Iron	9840		21800		SO-KF-05	10 / 10	N/A	14884
Lead	86.5		265.5		SO-KF-05	10 / 10	N/A	160
Magnesium	1590		2880		SO-KF-05	10 / 10	N/A	2180
Manganese	245		1340		SO-KF-05	10 / 10	N/A	638
Mercury	0.27	J	0.855	J	SO-KF-05	10 / 10	N/A	0.6
Nickel	5.6		17.75		SO-KF-05	10 / 10	N/A	12
Potassium	254	J	511	J	SO-KF-02	10 / 10	N/A	389
Selenium	0.65	J	0.87	J	SO-KF-10	2 / 10	0.58 - 0.6	0.4
Silver	0.47	J	0.875		SO-KF-05	9 / 10	0.4	0.6
Sodium	171	J	279	J	SO-KF-05	7 / 10	150 - 152	174
Thallium						0 / 10	1.7 - 1.8	0.9
Vanadium	15.5		37.35		SO-KF-05	10 / 10	N/A	25
Zinc	181	J	489		SO-KF-05	10 / 10	N/A	334
Total Organic Carbon	12700		62500		SO-KF-02	10 / 10	7630 - 8620	42075

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-166
SURFACE SOIL DATA SUMMARY - STATION NRSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	2890		8250		SO-NR-20	5 / 5	N/A	4608
Antimony						0 / 5	1.7 - 2	0.9
Arsenic	39.6		266		SO-NR-20	5 / 5	N/A	111
Barium	16.8		74.2		SO-NR-20	5 / 5	N/A	38
Beryllium	0.3		0.56		SO-NR-20	3 / 5	0.15 - 0.16	0.3
Cadmium	1.2		3		SO-NR-20	2 / 5	0.3 - 0.69	1
Calcium	1090		4450		SO-NR-20	5 / 5	N/A	2207
Chromium	40		228		SO-NR-20	5 / 5	N/A	98
Cobalt	2.95		12.8		SO-NR-20	5 / 5	N/A	6
Copper	38.6		228		SO-NR-20	5 / 5	N/A	97
Iron	7960		36900		SO-NR-20	5 / 5	N/A	17216
Lead	35.6		187		SO-NR-20	5 / 5	N/A	85
Magnesium	1070		2700		SO-NR-20	5 / 5	N/A	1636
Manganese	111		830		SO-NR-20	5 / 5	N/A	307
Mercury	0.38		2		SO-NR-20	5 / 5	N/A	0.8
Nickel	4.25	J	14.9		SO-NR-20	4 / 5	4.9	8
Potassium	236		548		SO-NR-20	5 / 5	N/A	364
Selenium	0.68	J	2.4	J	SO-NR-20	3 / 5	0.6	0.9
Silver	0.31	J	2.7		SO-NR-20	5 / 5	N/A	1.1
Sodium	189	J	602		SO-NR-16	5 / 5	N/A	339
Thallium						0 / 5	1.7 - 2	0.9
Vanadium	8.75		31.8		SO-NR-20	5 / 5	N/A	16
Zinc	105	J	708	J	SO-NR-20	5 / 5	N/A	290
Total Organic Carbon								
Total Organic Carbon	5100	J	54900		SO-NR-20	5 / 5	7140 - 8850	24400

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-167
SURFACE SEDIMENT DATA SUMMARY - STATION WSS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	6530		9400		SO-SS-03	5 / 5	N/A	8088
Antimony	0.76	J	0.76	J	SO-SS-05	1 / 5	1.7 - 1.8	0.9
Arsenic	8.1		10.9		SO-SS-03	5 / 5	N/A	9
Barium	28.9		43.6		SO-SS-04	5 / 5	N/A	35
Beryllium	0.18	J	0.33	J	SO-SS-05	4 / 5	0.2	0.22
Cadmium	0.31	J	0.37	J	SO-SS-05	2 / 5	0.19 - 0.2	0.2
Calcium	1330		2240		SO-SS-04	5 / 5	N/A	1925
Chromium	9.3		19.7		SO-SS-05	5 / 5	N/A	13
Cobalt	2.3		5.3		SO-SS-05	5 / 5	N/A	4
Copper	18.3		33.8	J	SO-SS-02	5 / 5	N/A	27
Iron	6600		10800		SO-SS-05	5 / 5	N/A	9233
Lead	55.5		93.3		SO-SS-03	5 / 5	N/A	68
Magnesium	1360		2390		SO-SS-04	5 / 5	N/A	2009
Manganese	90.6		204		SO-SS-05	5 / 5	N/A	148
Mercury	0.09	J	0.13	J	SO-SS-01	5 / 5	N/A	0.10
Nickel	6.7		9.7		SO-SS-03	5 / 5	N/A	8
Potassium	452		859		SO-SS-04	5 / 5	N/A	581
Selenium	0.76	J	0.76	J	SO-SS-05	1 / 5	0.77 - 1.4	0.5
Silver						0 / 5	0.19 - 0.2	0.10
Sodium	267		960	J	SO-SS-05	5 / 5	N/A	419
Thallium	1.5	J	1.5	J	SO-SS-01	1 / 5	0.6 - 1.4	0.77
Vanadium	13.1		24.3		SO-SS-03	5 / 5	N/A	19
Zinc	33.5		81.5	J	SO-SS-05	5 / 5	N/A	54
Total Organic Carbon (mg/Kg)	21800		36600		SO-SS-05	5 / 5	7140 - 8330	27850

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-168
SURFACE SOIL DATA SUMMARY - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	2890		10900		SO-DA-03	61 / 61	7.4	6839
Antimony	0.67	J	1.6		SO-CB-05-05	7 / 61	0.65 - 4.9	0.82
Arsenic	6.05	J	272	J	SO-DA-03	61 / 61	5.6	44
Barium	11		152.5		SO-DP-26	61 / 61	0.1	40
Beryllium	0.18	J	0.56		SO-NR-20	28 / 44	0.05 - 0.24	0.24
Cadmium	0.22	J	4.6	J	SO-DA-03	25 / 61	0.1 - 0.76	0.5
Calcium	556		7240		SO-DP-26	61 / 61	9.7	2423
Chromium	9.3		550	J	SO-DA-03	61 / 61	1.5	98
Cobalt	2.3		25.7		SO-DA-03	61 / 61	1.7	7
Copper	18.3		320	J	SO-DA-03	61 / 61	0.6	78
Iron	6600		134000	J	SO-DP-16	61 / 61	29.5	14921
Lead	25		274	J	SO-DA-03	61 / 61	2.6	109
Magnesium	1070		5020		SO-DP-03	61 / 61	14.6	2251
Manganese	58.1		2850		SO-DA-03	61 / 61	0.2	351
Mercury	0.07	J	3.4		SO-DA-03	56 / 61	0.1 - 0.26	0.6
Nickel	4.25	J	22.2		SO-DA-03	60 / 61	1 - 4.9	11
Potassium	190		1000		SO-CB-05-02	61 / 61	41	469
Selenium	0.65	J	6.1		SO-DP-16	21 / 61	0.58 - 3.9	0.8
Silver	0.28	J	2.7		SO-NR-20	39 / 60	0.19 - 1.8	0.52
Sodium	171	J	960	J	SO-SS-05	33 / 60	6.4 - 268	215
Thallium	0.72	J	3.6	J	SO-DP-16	17 / 61	0.6 - 7.8	1.2
Vanadium	8.75		58.1		SO-DP-12	61 / 61	1.4	25
Zinc	33.5		44800		SO-DP-16	61 / 61	0.1 - 3.3	947
Wet Parameters - mg/Kg								
Chromium VI						0 / 5	2.142 - 2.896	1.2
pH	4.38		6.31		SO-DP-19	5 / 5	N/A	5.5
Redox Potential	2	J	54	J	SO-DP-12	5 / 5	N/A	19
Sulfide	9.58	J	19.35	J	SO-DP-06	5 / 5	1.87 - 2.1	13
Total Organic Carbon (mg/Kg)	5100	J	92100		SO-CB-05-05	35 / 35	5880 - 10100	40164

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-169
SURFACE SOIL DATA HITS TABLE - STATION CB-05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-CB-05-01	SO-CB-05-02	SO-CB-05-03	SO-CB-05-04	SO-CB-05-05	SO-CB-05-06	SO-CB-05-07	SO-CB-05-08	SO-CB-05-09	SO-CB-05-10
Metals (mg/Kg)										
Aluminum	6310	6100	5350	5360	6090	4820	4940	7240	5190	6290
Antimony	0.67 J	0.65 U	1.4	0.93 J	1.6	0.75 J	0.72 U	1.2 J	1.9 U	1.9 U
Arsenic	23.1	22.4	18.2	21	86.3	16.8	18.4	23.1	23.4 J	47.55 J
Barium	22.9	29.8	23.7	21.3	31.5	32.5	29.4	40.1	17.1	19.25
Beryllium	0.27 J	0.3 J	0.27 J	0.27 J	0.36 J	0.27 J	0.26 J	0.38 J	0.21 U	0.22 U
Cadmium	0.27 J	0.42 J	0.4 J	0.35 J	0.93	1.1	0.76	0.38 J	0.22 J	0.22 U
Calcium	2170	1690	1370	1540	2170	4010	3600	2320	1240	1600
Chromium	13.4	21.1	211	36.2	152	16.9	33.2	29.6	14.3	35.2
Cobalt	6.6	5.7	5.1	4.2	9.5	5.1	5	5.3	3.7	6.2
Copper	27.9	34.7	39.6	31.4	82.9	28.1	26.5	33.7	38.2	58.6
Iron	11400	9850	11600	7870	14500	6690	7790	10500	9020	11850
Lead	28.9	33.1	56.2	31.3	90.9	41.6	38.4	69	50.2	63.8
Magnesium	3020	2540	2390	2300	1620	1870	1940	2420	2020	2480
Manganese	189	215	136	129	309	212	234	192	128 J	194.5 J
Mercury	0.08 J	0.07 J	0.12	0.12	0.6	0.08 J	0.1 J	0.18	0.13	0.26
Nickel	9.9	10	10.3	9.3	10.3	9.4	8.7	11.3	8.5	9.85
Potassium	884	1000	617	707	421	734	695	916	570	654
Selenium	0.66 UJ	0.65 UJ	0.65 UJ	0.66 UJ	1.2 J	0.74 UJ	0.72 UJ	0.8 UJ	0.83 UJ	1.1 J
Sodium	321	340	353	321	361	369	356	391	281	276.5
Thallium	1.3 J	0.72 J	0.65 U	0.66 U	0.71 U	0.74 U	0.72 U	0.8 U	1.8 J	1.85 J
Vanadium	23.5	20.1	17.2	19.2	34.9	18.6	19.1	27.4	20.7	26.5
Zinc	99.5	117	99.9	89.5	187	259	195	105	60.7 J	84.1 J
TOC/TCO (mg/Kg)										
Total Organic Carbon	23400	29300	19700	42800	92100	80900	88800	82500	40200	46850

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TABLE 2-170
SURFACE SOIL DATA HITS TABLE - STATION DA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DA-01	SO-DA-02	SO-DA-03	SO-DA-04	SO-DA-05
Metals (mg/Kg)					
Aluminum	5475	8180	10900	5160	5180
Arsenic	42.75 J	21.8 J	272 J	54.6 J	102 J
Barium	18.85	20.4	90.6	11	35.6
Beryllium	0.21 U	0.24 J	0.53	0.24 U	0.22 U
Cadmium	0.345 J	0.23 UJ	4.6 J	0.3 J	1.4 J
Calcium	882.5	611	4060	556	1750
Chromium	105.95 J	32.6 J	550 J	85.7 J	192 J
Cobalt	4.2	4.5	25.7	2.8	7.9
Copper	113 J	41.4 J	320 J	81.5 J	170 J
Iron	9240	13500	37000	10600	14000
Lead	143.6 J	67.4 J	274 J	104 J	82.1 J
Magnesium	1625	2630	2560	1360	1440
Manganese	149.5	74.8	2850	58.1	824
Mercury	0.435	0.31 J	3.4	0.7	1.1
Nickel	7.8	10.4	22.2	6.5	9.4
Potassium	445	415	487	300	321
Selenium	0.86 UJ	1.2 J	2 J	1.2 J	0.86 UJ
Silver	0.21 U	0.23 U	0.28 J	0.24 U	0.22 U
Sodium	278.5	272	559	329	351
Thallium	1.5 U	1.6 J	3.4	1.7 U	1.5 U
Vanadium	15.8	33.6	41.9	27.9	14.1
Zinc	113.5	53.1	843	58.1	305
TOC/TCO (mg/Kg)					
Total Organic Carbon	13100	28700	31400	87000	17000

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TABLE 2-171
SURFACE SOIL DATA HITS TABLE - DAVIDSON PARK
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-01	SO-DP-02	SO-DP-03	SO-DP-04	SO-DP-05	SO-DP-06	SO-DP-07	SO-DP-08	SO-DP-09
Metals (mg/Kg)									
Aluminum	7700 J	7560 J	9920 J	7840 J	7720 J	6865 J	7490 J	7240 J	10600 J
Arsenic	68.3	34.2	17.3	32.5	16.4	25.55	18.1	24.5	78.9
Barium	20.4	26.7	39.5	35.8	36.9	30.2	43.7	33.3	51.6
Beryllium	R	R	R	R	R	R	R	R	R
Cadmium	0.12 U	0.12 U	0.11 U	0.11 U	0.15 U	0.15 UJ	0.12 U	0.11 U	0.28 UJ
Calcium	1140 J	1340 J	2400 J	1730 J	2620 J	1970 J	2540 J	2070 J	3090 J
Chromium	24.4 J	146 J	56 J	203 J	89.7 J	149.5 J	126 J	162 J	133 J
Cobalt	4.3	4.9	13.3	5.6	10	10.2	7.2	6.8	12.5
Copper	108	111	76.7	121	54.4	90.25	64.4	95.1	138
Iron	12000 J	11000 J	18000 J	12100 J	13400 J	11200 J	12000 J	11800 J	18500 J
Lead	58.6	156	104	167	112	115	146	104	240
Magnesium	1880	1950	5020	2540	3310	2655	2570	2710	3170
Manganese	84.8 J	84.8 J	492 J	101 J	373 J	204 J	217 J	143 J	497 J
Mercury	0.61	1.5	0.26 U	1.2	0.57	1.5	0.92	1.2	1.4
Nickel	6.5 J	10.1 J	18.4 J	12.2 J	15.9 J	14 J	11.9 J	12.6 J	18.3 J
Potassium	397	362	526	423	502	460	468	586	425
Selenium	0.94 U	0.94 U	0.89 U	0.84 U	1.5	1.065 J	0.97 U	0.94 J	1.1 U
Silver	0.61 J	0.69 J	0.76 J	0.63 J	0.73 J	0.555 J	0.58 J	0.63 J	1 J
Sodium	129 UJ	117 UJ	189 UJ	149 UJ	268 UJ	148 UJ	146 UJ	199 UJ	257 UJ
Thallium	1.9 U	2.4 J	1.8 U	2.6 J	2.3 U	1.775 J	1.9 U	2 J	2.3 U
Vanadium	16.3	38.6	35.1	39.8	27.8	25.15	26.2	26	35.9
Zinc	109	187	196	203	178	305	251	246	434
Wet Parameters (mg/Kg)									
pH	4.38	NA	NA	NA	NA	5.695	NA	NA	NA
Redox Potential	6 J	NA	NA	NA	NA	28.5 J	NA	NA	NA
Sulfide	10.9 J	NA	NA	NA	NA	19.35 J	NA	NA	NA

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TABLE 2-171
SURFACE SOIL DATA HITS TABLE - DAVIDSON PARK
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-10	SO-DP-11	SO-DP-12	SO-DP-13	SO-DP-14	SO-DP-15	SO-DP-16	SO-DP-17	SO-DP-18
Metals (mg/Kg)									
Aluminum	7910 J	8010 J	10000 J	5940 J	7180 J	6070 J	8130 J	6950 J	6370 J
Arsenic	24.1	29.9	43.4	32.3	17.6	8.5	13.6	11.9	10.4
Barium	40.2	44	48.3	69.1	51	20.3	37.7 J	37	26.7
Beryllium	R	R	R	0.06 UJ	R	R	R	R	0.05 U
Cadmium	0.12 U	0.15 U	0.14 U	0.12 U	0.12 U	0.1 U	0.12 UJ	0.12 U	0.12 U
Calcium	2380 J	2490 J	2070 J	5740 J	2100 J	2390 J	4330 J	2340 J	1470
Chromium	142 J	111 J	253 J	223 J	51.4 J	25.2 J	77.4 J	60.9 J	51.7 J
Cobalt	7.9	9.1	8.3	4.8	5.6	5.7	6.4	5.4	4.7
Copper	83.6	99.9	139	51.8	31.3	20.8	55.8	35.1	26.5
Iron	12200 J	15200 J	15700 J	8190 J	9630 J	9020 J	134000 J	9950 J	8200
Lead	128	178	261	78.4	107	25	73.6	80.1	43.3 J
Magnesium	2560	2850	2980	1810	2160	2980	2090	2520	1800
Manganese	237 J	397 J	221 J	140 J	167 J	150 J	334 J	167 J	136
Mercury	1.2	0.73	0.93	0.45	0.25 U	0.13 U	0.13 U	0.48	0.67
Nickel	12.6 J	15.6 J	15.4 J	8.8 J	10.4 J	8.1 J	21 J	10.3 J	8.6
Potassium	386	276	335	225	280	543	588	602	234
Selenium	0.95 U	1.7 J	1.2 J	1 J	1.3 J	0.81 U	6.1	0.93 J	1.2 J
Silver	0.69 J	1.3	1.1	0.45 J	0.51 J	0.41 J	R	0.72 J	0.48 J
Sodium	206 UJ	263 UJ	173 UJ	162 UJ	157 UJ	128 UJ	R	182 UJ	80.6 U
Thallium	1.9 U	2.7 J	2.2 U	2.9 J	2.2 J	1.6 U	3.6 J	2.1 J	2 J
Vanadium	27.4	42.5	58.1	22.7	30.6	16.8	21.3 J	20.2	18.4
Zinc	238	263	237	222	111	55.8	44800	123	104
Wet Parameters (mg/Kg)									
pH	NA	NA	5.19	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	54 J	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	10.3 J	NA	NA	NA	NA	NA	NA

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TABLE 2-171
SURFACE SOIL DATA HITS TABLE - DAVIDSON PARK
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-19	SO-DP-20	SO-DP-21	SO-DP-22	SO-DP-23	SO-DP-24	SO-DP-25	SO-DP-26
Metals (mg/Kg)								
Aluminum	8520 J	7840 J	7990 J	8070 J	7540 J	6490 J	8500 J	10600 J
Arsenic	19	6.05 J	12.8	8.8	23.9	11.6	54.7	219
Barium	42.1	27.75	38.7	25.1	41.9	24.5	69.9	152.5
Beryllium	R	0.05 U	0.06 U	0.05 U	0.06 U	0.05 U	0.07 U	0.44
Cadmium	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.13 U	0.24 UJ	0.6475 J
Calcium	2740 J	2095	2820	1810	2320	1790	4250	7240
Chromium	59.2 J	30.4 J	41 J	27.8 J	99.3 J	48.4 J	145 J	316 J
Cobalt	7.1	4.15	5.5	3.9	8.7	4.4	11.4	5.95
Copper	53.6	25.75	41.2	25.3	78.6	33.2	131	298.5
Iron	12400 J	8755	12100	8990	13700	7890	20900	16850
Lead	127	42.65 J	84.7 J	43.7 J	127 J	47.5 J	206 J	229.5 J
Magnesium	2590	1780	2080	1710	3010	1370	2840	2120
Manganese	383 J	109.5	234	113	420	124	818	521.5
Mercury	0.45	0.22 J	0.38 J	0.2 UJ	0.91	0.45	1.3	2.35
Nickel	12.7 J	8.4	10.2	7.6	13.7	7.3	18.5	12.15
Potassium	424	255.5	325	354	429	190	755	457
Selenium	1.1 U	0.96 U	1.1 U	0.9 U	1.1 U	1 U	1.3 U	2.5 UJ
Silver	0.7 J	0.42 J	0.73 J	0.42 U	0.87 J	0.56 J	1.2 J	0.685 J
Sodium	171 UJ	129 U	163 U	104 U	139 U	98 U	241 U	216 J
Thallium	2.1 U	1.9 U	2.2 U	1.8 U	2.2 U	2 U	2.7 U	2.2 U
Vanadium	24.4	16.75	20.3	17.2	27.7	15.6	32.7	39.5
Zinc	190	76.75	141	81.2	249	131	474	415.5
Wet Parameters (mg/Kg)								
pH	6.31	NA	NA	6.17	NA	NA	NA	NA
Redox Potential	2 J	NA	NA	3 J	NA	NA	NA	NA
Sulfide	12.4 J	NA	NA	9.58 J	NA	NA	NA	NA

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TABLE 2-172
SURFACE SOIL DATA HITS TABLE - STATION KFSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-KF-01	SO-KF-02	SO-KF-03	SO-KF-04	SO-KF-05	SO-KF-06	SO-KF-07	SO-KF-08	SO-KF-09	SO-KF-10
Metals (mg/Kg)										
Aluminum	5440	7290	6170	5100	7550	4090	5280	3840	6040	5240
Arsenic	40.9	52.7	46.5	38.4	54.55	26.7	36.4	19.9	46.4	34.5
Barium	61.3	73.4	59.4	50	77.05	29.9	43.4	27.3	49.4	38.7
Beryllium	0.36	0.48	0.39	0.36	0.485 J	0.27	0.38	0.21	0.38	0.33
Cadmium	1.4	1.6	1.2	1.3	2.05 J	0.44 U	0.76 U	0.45 U	1.2	0.86
Calcium	3310	3550	3230	2640	3570	1990	2710	1620	3270	2380
Chromium	94.5	141	109	112	127.5	50	92.5	48.4	107	134
Cobalt	8.9	11.6	9.6	8.3	13.35	5.9	9.5	5.5	9.6	8
Copper	92.3	126	100	91.3	143.5	50.6	79.8	51.1	95.9	78.4
Iron	14900	19400	16800	13500	21800	10800	13500	9840	15300	13000
Lead	178	217	163	168	265.5	88.1	136	86.5	177	124
Magnesium	2180	2810	2450	1940	2880	1660	2050	1590	2270	1970
Manganese	716	821	722	560	1340	375	481	245	696	427
Mercury	0.58 J	0.64 J	0.66 J	0.71 J	0.855 J	0.27 J	0.74 J	0.32	0.57 J	0.53 J
Nickel	9.9	14.2	17.5	9.4	17.75	5.6	7.7	13.4	9	13.6
Potassium	488 J	511 J	456 J	371 J	383.5 J	254 J	330 J	343	390 J	365 J
Selenium	0.59 UJ	0.6 UJ	0.6 UJ	0.6 UJ	0.65 J	0.58 UJ	0.59 UJ	0.6 UJ	0.6 UJ	0.87 J
Silver	0.56 J	0.73 J	0.78 J	0.56 J	.875	0.47 J	0.55 J	0.4 U	0.65 J	0.56 J
Sodium	243 J	193 J	185 J	151 U	279 J	183 J	171 J	150 U	264 J	152 U
Vanadium	24.4	31.7	27.2	23.3	37.35	17.9	25.1	15.5	26.2	23.1
Zinc	362	454	419	344	489	228	256	181 J	342	265
TOC/TCO (mg/Kg)										
Total Organic Carbon	52200	62500	47900	41100	56950	29800	44900	12700	40200	32500

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TABLE 2-173
SURFACE SOIL DATA HITS TABLE - STATION NRSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-NR-16	SO-NR-17	SO-NR-18	SO-NR-19	SO-NR-20
Metals (mg/Kg)					
Aluminum	4850	4100	2890	2950	8250
Arsenic	126	84.8	40.7	39.6	266
Barium	44.6	32.1	16.8	20.4	74.2
Beryllium	0.3	0.35	0.15 U	0.16 U	0.56
Cadmium	1.2	0.69 U	0.3 U	0.42 U	3
Calcium	2660	1430	1405	1090	4450
Chromium	108	70.2	43.15	40	228
Cobalt	6.3	4.8	2.95	3.1	12.8
Copper	105	72.8	40	38.6	228
Iron	18900	14200	7960	8120	36900
Lead	97.8	65.9	40.7	35.6	187
Magnesium	1770	1550	1070	1090	2700
Manganese	311	167	116	111	830
Mercury	0.83	0.45	.41	0.38	2
Nickel	10.8	8.6	4.25 J	4.9 U	14.9
Potassium	393	376	236	267	548
Selenium	0.93 J	0.68 J	0.6 UJ	0.6 UJ	2.4 J
Silver	1.2	0.75 J	0.31 J	0.51 J	2.7
Sodium	602	352	202.5 J	189 J	348
Vanadium	17.1	14.2	8.75	9.1	31.8
Zinc	306 J	207 J	105 J	124 J	708 J
TOC/TCO (mg/Kg)					
Total Organic Carbon	35200	19100	7700	5100 J	54900

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TABLE 2-174
SURFACE SOIL DATA HITS TABLE - STATION WSS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-SS-01	SO-SS-02	SO-SS-03	SO-SS-04	SO-SS-05
Metals (mg/Kg)					
Aluminum	6530	7300	9400	8330	8880
Antimony	1.8 UJ	1.8 U	1.8 U	1.7 U	0.76 J
Arsenic	8.3 J	8.65	10.9	8.1	8.7 J
Barium	28.9	33.1	32.3	43.6	35.1
Beryllium	0.27 J	0.18 J	0.2 UJ	0.2 J	0.33 J
Cadmium	0.2 UJ	0.2 U	0.31 J	0.19 U	0.37 J
Calcium	1330	1835	2120	2240	2100
Chromium	9.6 J	10.3	18.5	9.3	19.7
Cobalt	2.3	3.35	4	4.6	5.3
Copper	18.5 J	33.8 J	31 J	32.1 J	18.3
Iron	6600	8065 J	10400 J	10300 J	10800
Lead	66.3 J	63.15	93.3	55.5	61.1 J
Magnesium	1360	1745	2270	2390	2280
Manganese	90.6	123	173	147	204
Mercury	0.13 J	0.09 J	0.09 J	0.1 J	0.1 J
Nickel	6.7	7.1	9.7	7	9.6
Potassium	452	589.5	498	859	508
Selenium	0.81 U	0.95 UJ	1.4 UJ	0.77 UJ	0.76 J
Sodium	267	277.5 J	279 J	310 J	960 J
Thallium	1.5 J	1.4 U	1.4 U	1.3 U	0.6 U
Vanadium	13.1	14.2	24.3	18.1	23.9
Zinc	33.5	45.1	63.3	46.8	81.5 J
TOC/TCO (mg/Kg)					
Total Organic Carbon	21800	26550	29800	24500	36600

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-CB-05-01	SO-CB-05-02	SO-CB-05-03	SO-CB-05-04	SO-CB-05-05	SO-CB-05-06	SO-CB-05-07	SO-CB-05-08	SO-CB-05-09
Metals (mg/Kg)									
Aluminum	6310	6100	5350	5360	6090	4820	4940	7240	5190
Antimony	0.67 J	0.65 U	1.4	0.93 J	1.6	0.75 J	0.72 U	1.2 J	1.9 U
Arsenic	23.1	22.4	18.2	21	86.3	16.8	18.4	23.1	23.4 J
Barium	22.9	29.8	23.7	21.3	31.5	32.5	29.4	40.1	17.1
Beryllium	0.27 J	0.3 J	0.27 J	0.27 J	0.36 J	0.27 J	0.26 J	0.38 J	0.21 U
Cadmium	0.27 J	0.42 J	0.4 J	0.35 J	0.93	1.1	0.76	0.38 J	0.22 J
Calcium	2170	1690	1370	1540	2170	4010	3600	2320	1240
Chromium	13.4	21.1	211	36.2	152	16.9	33.2	29.6	14.3
Cobalt	6.6	5.7	5.1	4.2	9.5	5.1	5	5.3	3.7
Copper	27.9	34.7	39.6	31.4	82.9	28.1	26.5	33.7	38.2
Iron	11400	9850	11600	7870	14500	6690	7790	10500	9020
Lead	28.9	33.1	56.2	31.3	90.9	41.6	38.4	69	50.2
Magnesium	3020	2540	2390	2300	1620	1870	1940	2420	2020
Manganese	189	215	136	129	309	212	234	192	128 J
Mercury	0.08 J	0.07 J	0.12	0.12	0.6	0.08 J	0.1 J	0.18	0.13
Nickel	9.9	10	10.3	9.3	10.3	9.4	8.7	11.3	8.5
Potassium	884	1000	617	707	421	734	695	916	570
Selenium	0.66 UJ	0.65 UJ	0.65 UJ	0.66 UJ	1.2 J	0.74 UJ	0.72 UJ	0.8 UJ	0.83 UJ
Silver	0.22 U	0.22 U	0.22 U	0.22 U	0.24 U	0.25 U	0.24 U	0.27 U	0.21 U
Sodium	321	340	353	321	361	369	356	391	281
Thallium	1.3 J	0.72 J	0.65 U	0.66 U	0.71 U	0.74 U	0.72 U	0.8 U	1.8 J
Vanadium	23.5	20.1	17.2	19.2	34.9	18.6	19.1	27.4	20.7
Zinc	99.5	117	99.9	89.5	187	259	195	105	60.7 J
TOC/TCO (mg/Kg)									
Total Organic Carbon	23400	29300	19700	42800	92100	80900	88800	82500	40200
Wet Parameters (mg/Kg)									
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-CB-05-10	SO-DA-01	SO-DA-02	SO-DA-03	SO-DA-04	SO-DA-05	SO-DP-01	SO-DP-02	SO-DP-03
Metals (mg/Kg)									
Aluminum	6290	5475	8180	10900	5160	5180	7700 J	7560 J	9920 J
Antimony	1.9 U	1.9 UJ	2 UJ	2.1 UJ	2.2 UJ	1.9 UJ	2 U	1.2 U	1.1 U
Arsenic	47.55 J	42.75 J	21.8 J	272 J	54.6 J	102 J	68.3	34.2	17.3
Barium	19.25	18.85	20.4	90.6	11	35.6	20.4	26.7	39.5
Beryllium	0.22 U	0.21 U	0.24 J	0.53	0.24 U	0.22 U	R	R	R
Cadmium	0.22 U	0.345 J	0.23 UJ	4.6 J	0.3 J	1.4 J	0.12 U	0.12 U	0.11 U
Calcium	1600	882.5	611	4060	556	1750	1140 J	1340 J	2400 J
Chromium	35.2	105.95 J	32.6 J	550 J	85.7 J	192 J	24.4 J	146 J	56 J
Cobalt	6.2	4.2	4.5	25.7	2.8	7.9	4.3	4.9	13.3
Copper	58.6	113 J	41.4 J	320 J	81.5 J	170 J	108	111	76.7
Iron	11850	9240	13500	37000	10600	14000	12000 J	11000 J	18000 J
Lead	63.8	143.6 J	67.4 J	274 J	104 J	82.1 J	58.6	156	104
Magnesium	2480	1625	2630	2560	1360	1440	1880	1950	5020
Manganese	194.5 J	149.5	74.8	2850	58.1	824	84.8 J	84.8 J	492 J
Mercury	0.26	0.435	0.31 J	3.4	0.7	1.1	0.61	1.5	0.26 U
Nickel	9.85	7.8	10.4	22.2	6.5	9.4	6.5 J	10.1 J	18.4 J
Potassium	654	445	415	487	300	321	397	362	526
Selenium	1.1 J	0.86 UJ	1.2 J	2 J	1.2 J	0.86 UJ	0.94 U	0.94 U	0.89 U
Silver	0.22 U	0.21 U	0.23 U	0.28 J	0.24 U	0.22 U	0.61 J	0.69 J	0.76 J
Sodium	276.5	278.5	272	559	329	351	129 UJ	117 UJ	189 UJ
Thallium	1.85 J	1.5 U	1.6 J	3.4	1.7 U	1.5 U	1.9 U	2.4 J	1.8 U
Vanadium	26.5	15.8	33.6	41.9	27.9	14.1	16.3	38.6	35.1
Zinc	84.1 J	113.5	53.1	843	58.1	305	109	187	196
TOC/TCO (mg/Kg)									
Total Organic Carbon	46850	13100	28700	31400	87000	17000	NA	NA	NA
Wet Parameters (mg/Kg)									
pH	NA	NA	NA	NA	NA	NA	4.38	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	6 J	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	10.9 J	NA	NA

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-04	SO-DP-05	SO-DP-06	SO-DP-07	SO-DP-08	SO-DP-09	SO-DP-10	SO-DP-11	SO-DP-12
Metals (mg/Kg)									
Aluminum	7840 J	7720 J	6865 J	7490 J	7240 J	10600 J	7910 J	8010 J	10000 J
Antimony	1.1 U	1.5 U	1.1 U	1.2 U	1.1 U	1.4 U	1.2 U	1.4 U	1.4 U
Arsenic	32.5	16.4	25.55	18.1	24.5	78.9	24.1	29.9	43.4
Barium	35.8	36.9	30.2	43.7	33.3	51.6	40.2	44	48.3
Beryllium	R	R	R	R	R	R	R	R	R
Cadmium	0.11 U	0.15 U	0.15 UJ	0.12 U	0.11 U	0.28 UJ	0.12 U	0.15 U	0.14 U
Calcium	1730 J	2620 J	1970 J	2540 J	2070 J	3090 J	2380 J	2490 J	2070 J
Chromium	203 J	89.7 J	149.5 J	126 J	162 J	133 J	142 J	111 J	253 J
Cobalt	5.6	10	10.2	7.2	6.8	12.5	7.9	9.1	8.3
Copper	121	54.4	90.25	64.4	95.1	138	83.6	99.9	139
Iron	12100 J	13400 J	11200 J	12000 J	11800 J	18500 J	12200 J	15200 J	15700 J
Lead	167	112	115	146	104	240	128	178	261
Magnesium	2540	3310	2655	2570	2710	3170	2560	2850	2980
Manganese	101 J	373 J	204 J	217 J	143 J	497 J	237 J	397 J	221 J
Mercury	1.2	0.57	1.5	0.92	1.2	1.4	1.2	0.73	0.93
Nickel	12.2 J	15.9 J	14 J	11.9 J	12.6 J	18.3 J	12.6 J	15.6 J	15.4 J
Potassium	423	502	460	468	586	425	386	276	335
Selenium	0.84 U	1.5	1.065 J	0.97 U	0.94 J	1.1 U	0.95 U	1.7 J	1.2 J
Silver	0.63 J	0.73 J	0.555 J	0.58 J	0.63 J	1 J	0.69 J	1.3	1.1
Sodium	149 UJ	268 UJ	148 UJ	146 UJ	199 UJ	257 UJ	206 UJ	263 UJ	173 UJ
Thallium	2.6 J	2.3 U	1.775 J	1.9 U	2 J	2.3 U	1.9 U	2.7 J	2.2 U
Vanadium	39.8	27.8	25.15	26.2	26	35.9	27.4	42.5	58.1
Zinc	203	178	305	251	246	434	238	263	237
TOC/TCO (mg/Kg)									
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/Kg)									
pH	NA	NA	5.695	NA	NA	NA	NA	NA	5.19
Redox Potential	NA	NA	28.5 J	NA	NA	NA	NA	NA	54 J
Sulfide	NA	NA	19.35 J	NA	NA	NA	NA	NA	10.3 J

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-13	SO-DP-14	SO-DP-15	SO-DP-16	SO-DP-17	SO-DP-18	SO-DP-19	SO-DP-20	SO-DP-21
Metals (mg/Kg)									
Aluminum	5940 J	7180 J	6070 J	8130 J	6950 J	6370 J	8520 J	7840 J	7990 J
Antimony	1.2 U	1.1 U	1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.4 U
Arsenic	32.3	17.6	8.5	13.6	11.9	10.4	19	6.05 J	12.8
Barium	69.1	51	20.3	37.7 J	37	26.7	42.1	27.75	38.7
Beryllium	0.06 UJ	R	R	R	R	0.05 U	R	0.05 U	0.06 U
Cadmium	0.12 U	0.12 U	0.1 U	0.12 UJ	0.12 U	0.12 U	0.14 U	0.12 U	0.14 U
Calcium	5740 J	2100 J	2390 J	4330 J	2340 J	1470	2740 J	2095	2820
Chromium	223 J	51.4 J	25.2 J	77.4 J	60.9 J	51.7 J	59.2 J	30.4 J	41 J
Cobalt	4.8	5.6	5.7	6.4	5.4	4.7	7.1	4.15	5.5
Copper	51.8	31.3	20.8	55.8	35.1	26.5	53.6	25.75	41.2
Iron	8190 J	9630 J	9020 J	134000 J	9950 J	8200	12400 J	8755	12100
Lead	78.4	107	25	73.6	80.1	43.3 J	127	42.65 J	84.7 J
Magnesium	1810	2160	2980	2090	2520	1800	2590	1780	2080
Manganese	140 J	167 J	150 J	334 J	167 J	136	383 J	109.5	234
Mercury	0.45	0.25 U	0.13 U	0.13 U	0.48	0.67	0.45	0.22 J	0.38 J
Nickel	8.8 J	10.4 J	8.1 J	21 J	10.3 J	8.6	12.7 J	8.4	10.2
Potassium	225	280	543	588	602	234	424	255.5	325
Selenium	1 J	1.3 J	0.81 U	6.1	0.93 J	1.2 J	1.1 U	0.96 U	1.1 U
Silver	0.45 J	0.51 J	0.41 J	R	0.72 J	0.48 J	0.7 J	0.42 J	0.73 J
Sodium	162 UJ	157 UJ	128 UJ	R	182 UJ	80.6 U	171 UJ	129 U	163 U
Thallium	2.9 J	2.2 J	1.6 U	3.6 J	2.1 J	2 J	2.1 U	1.9 U	2.2 U
Vanadium	22.7	30.6	16.8	21.3 J	20.2	18.4	24.4	16.75	20.3
Zinc	222	111	55.8	44800	123	104	190	76.75	141
TOC/TCO (mg/Kg)									
Total Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wet Parameters (mg/Kg)									
pH	NA	NA	NA	NA	NA	NA	6.31	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	2 J	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	12.4 J	NA	NA

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-DP-22	SO-DP-23	SO-DP-24	SO-DP-25	SO-DP-26	SO-KF-01	SO-KF-02	SO-KF-03	SO-KF-04
Metals (mg/Kg)									
Aluminum	8070 J	7540 J	6490 J	8500 J	10600 J	5440	7290	6170	5100
Antimony	1.1 U	1.4 U	1.3 U	3.3 UJ	2.9 U	1.7 U	1.7 U	1.8 U	1.7 U
Arsenic	8.8	23.9	11.6	54.7	219	40.9	52.7	46.5	38.4
Barium	25.1	41.9	24.5	69.9	152.5	61.3	73.4	59.4	50
Beryllium	0.05 U	0.06 U	0.05 U	0.07 U	0.44	0.36	0.48	0.39	0.36
Cadmium	0.12 U	0.14 U	0.13 U	0.24 UJ	0.6475 J	1.4	1.6	1.2	1.3
Calcium	1810	2320	1790	4250	7240	3310	3550	3230	2640
Chromium	27.8 J	99.3 J	48.4 J	145 J	316 J	94.5	141	109	112
Cobalt	3.9	8.7	4.4	11.4	5.95	8.9	11.6	9.6	8.3
Copper	25.3	78.6	33.2	131	298.5	92.3	126	100	91.3
Iron	8990	13700	7890	20900	16850	14900	19400	16800	13500
Lead	43.7 J	127 J	47.5 J	206 J	229.5 J	178	217	163	168
Magnesium	1710	3010	1370	2840	2120	2180	2810	2450	1940
Manganese	113	420	124	818	521.5	716	821	722	560
Mercury	0.2 UJ	0.91	0.45	1.3	2.35	0.58 J	0.64 J	0.66 J	0.71 J
Nickel	7.6	13.7	7.3	18.5	12.15	9.9	14.2	17.5	9.4
Potassium	354	429	190	755	457	488 J	511 J	456 J	371 J
Selenium	0.9 U	1.1 U	1 U	1.3 U	2.5 UJ	0.59 UJ	0.6 UJ	0.6 UJ	0.6 UJ
Silver	0.42 U	0.87 J	0.56 J	1.2 J	0.685 J	0.56 J	0.73 J	0.78 J	0.56 J
Sodium	104 U	139 U	98 U	241 U	216 J	243 J	193 J	185 J	151 U
Thallium	1.8 U	2.2 U	2 U	2.7 U	2.2 U	1.7 U	1.8 U	1.8 U	1.8 U
Vanadium	17.2	27.7	15.6	32.7	39.5	24.4	31.7	27.2	23.3
Zinc	81.2	249	131	474	415.5	362	454	419	344
TOC/TCO (mg/Kg)									
Total Organic Carbon	NA	NA	NA	NA	NA	52200	62500	47900	41100
Wet Parameters (mg/Kg)									
pH	6.17	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	3 J	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	9.58 J	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-KF-05	SO-KF-06	SO-KF-07	SO-KF-08	SO-KF-09	SO-KF-10	SO-NR-16	SO-NR-17	SO-NR-18
Metals (mg/Kg)									
Aluminum	7550	4090	5280	3840	6040	5240	4850	4100	2890
Antimony	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U
Arsenic	54.55	26.7	36.4	19.9	46.4	34.5	126	84.8	40.7
Barium	77.05	29.9	43.4	27.3	49.4	38.7	44.6	32.1	16.8
Beryllium	0.485 J	0.27	0.38	0.21	0.38	0.33	0.3	0.35	0.15 U
Cadmium	2.05 J	0.44 U	0.76 U	0.45 U	1.2	0.86	1.2	0.69 U	0.3 U
Calcium	3570	1990	2710	1620	3270	2380	2660	1430	1405
Chromium	127.5	50	92.5	48.4	107	134	108	70.2	43.15
Cobalt	13.35	5.9	9.5	5.5	9.6	8	6.3	4.8	2.95
Copper	143.5	50.6	79.8	51.1	95.9	78.4	105	72.8	40
Iron	21800	10800	13500	9840	15300	13000	18900	14200	7960
Lead	265.5	88.1	136	86.5	177	124	97.8	65.9	40.7
Magnesium	2880	1660	2050	1590	2270	1970	1770	1550	1070
Manganese	1340	375	481	245	696	427	311	167	116
Mercury	0.855 J	0.27 J	0.74 J	0.32	0.57 J	0.53 J	0.83	0.45	.41
Nickel	17.75	5.6	7.7	13.4	9	13.6	10.8	8.6	4.25 J
Potassium	383.5 J	254 J	330 J	343	390 J	365 J	393	376	236
Selenium	0.65 J	0.58 UJ	0.59 UJ	0.6 UJ	0.6 UJ	0.87 J	0.93 J	0.68 J	0.6 UJ
Silver	.875	0.47 J	0.55 J	0.4 U	0.65 J	0.56 J	1.2	0.75 J	0.31 J
Sodium	279 J	183 J	171 J	150 U	264 J	152 U	602	352	202.5 J
Thallium	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U
Vanadium	37.35	17.9	25.1	15.5	26.2	23.1	17.1	14.2	8.75
Zinc	489	228	256	181 J	342	265	306 J	207 J	105 J
TOC/TCO (mg/Kg)									
Total Organic Carbon	56950	29800	44900	12700	40200	32500	35200	19100	7700
Wet Parameters (mg/Kg)									
pH	NA	NA	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA	NA	NA

US EPA ARCHIVE DOCUMENT

TABLE 2-175
SURFACE SOIL DATA HITS TABLE - ALL LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-NR-19	SO-NR-20	SO-SS-01	SO-SS-02	SO-SS-03	SO-SS-04	SO-SS-05
Metals (mg/Kg)							
Aluminum	2950	8250	6530	7300	9400	8330	8880
Antimony	1.7 U	2 U	1.8 UJ	1.8 U	1.8 U	1.7 U	0.76 J
Arsenic	39.6	266	8.3 J	8.65	10.9	8.1	8.7 J
Barium	20.4	74.2	28.9	33.1	32.3	43.6	35.1
Beryllium	0.16 U	0.56	0.27 J	0.18 J	0.2 UJ	0.2 J	0.33 J
Cadmium	0.42 U	3	0.2 UJ	0.2 U	0.31 J	0.19 U	0.37 J
Calcium	1090	4450	1330	1835	2120	2240	2100
Chromium	40	228	9.6 J	10.3	18.5	9.3	19.7
Cobalt	3.1	12.8	2.3	3.35	4	4.6	5.3
Copper	38.6	228	18.5 J	33.8 J	31 J	32.1 J	18.3
Iron	8120	36900	6600	8065 J	10400 J	10300 J	10800
Lead	35.6	187	66.3 J	63.15	93.3	55.5	61.1 J
Magnesium	1090	2700	1360	1745	2270	2390	2280
Manganese	111	830	90.6	123	173	147	204
Mercury	0.38	2	0.13 J	0.09 J	0.09 J	0.1 J	0.1 J
Nickel	4.9 U	14.9	6.7	7.1	9.7	7	9.6
Potassium	267	548	452	589.5	498	859	508
Selenium	0.6 UJ	2.4 J	0.81 U	0.95 UJ	1.4 UJ	0.77 UJ	0.76 J
Silver	0.51 J	2.7	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Sodium	189 J	348	267	277.5 J	279 J	310 J	960 J
Thallium	1.8 U	2 U	1.5 J	1.4 U	1.4 U	1.3 U	0.6 U
Vanadium	9.1	31.8	13.1	14.2	24.3	18.1	23.9
Zinc	124 J	708 J	33.5	45.1	63.3	46.8	81.5 J
TOC/TCO (mg/Kg)							
Total Organic Carbon	5100 J	54900	21800	26550	29800	24500	36600
Wet Parameters (mg/Kg)							
pH	NA	NA	NA	NA	NA	NA	NA
Redox Potential	NA	NA	NA	NA	NA	NA	NA
Sulfide	NA	NA	NA	NA	NA	NA	NA

US EPA ARCHIVE DOCUMENT

TABLE 2-176
CRAYFISH TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.63	J	0.94	J	CF-RB-03	2 / 2	N/A	0.79
4,4'-DDE	4		5.3		CF-RB-03	2 / 2	N/A	4.7
4,4'-DDT						0 / 2	0.98	0.49
Aldrin						0 / 2	0.5 - 0.51	0.25
alpha-BHC						0 / 2	0.5 - 0.51	0.25
alpha-Chlordane						0 / 2	0.5 - 0.51	0.25
Aroclor-1016						0 / 2	5	2.5
Aroclor-1221						0 / 2	9.9	5.0
Aroclor-1232						0 / 2	5	2.5
Aroclor-1242						0 / 2	5	2.5
Aroclor-1248						0 / 2	5	2.5
Aroclor-1254						0 / 2	5	2.5
Aroclor-1260	5.1		5.2		CF-RB-03	2 / 2	N/A	5.2
beta-BHC						0 / 2	0.5 - 0.51	0.25
delta-BHC						0 / 2	0.5 - 0.51	0.25
Dieldrin						0 / 2	0.98	0.49
Endosulfan I						0 / 2	0.5 - 0.51	0.25
Endosulfan II						0 / 2	0.98	0.49
Endosulfan sulfate						0 / 2	0.98	0.49
Endrin						0 / 2	0.98	0.49
Endrin aldehyde						0 / 2	0.98	0.49
Endrin ketone						0 / 2	0.98	0.49
gamma-BHC (lindane)						0 / 2	0.5 - 0.51	0.25
gamma-Chlordane						0 / 2	0.5 - 0.51	0.25
Heptachlor						0 / 2	0.5 - 0.51	0.25
Heptachlor epoxide						0 / 2	0.5 - 0.51	0.25
Methoxychlor						0 / 2	5 - 5.1	2.5
Toxaphene						0 / 2	50 - 51	25
Metals - mg/Kg								
Aluminum	9.4	J	10.1	J	CF-RB-03	2 / 2	N/A	9.8
Antimony						0 / 1	0.096	0.048
Arsenic						0 / 2	0.36 - 0.41	0.19
Barium	12.5		18.3		CF-RB-02	2 / 2	N/A	15
Beryllium						0 / 2	0.00869 - 0.0089	0.0044
Cadmium	0.07	J	0.09	J	CF-RB-03	2 / 2	N/A	0.080
Calcium	27300		43300		CF-RB-02	2 / 2	N/A	35300
Chromium	0.18	J	0.18	J	CF-RB-03	1 / 1	N/A	0.18
Cobalt	0.4	J	0.44	J	CF-RB-03	2 / 2	N/A	0.42
Copper	19.2	J	21	J	CF-RB-03	2 / 2	N/A	20
Cyanide						0 / 2	0.43 - 0.44	0.22
Iron	54.7		78		CF-RB-03	2 / 2	N/A	66
Lead						0 / 2	0.066 - 0.067	0.033
Magnesium						0 / 2	372 - 443	204
Manganese	104	J	108	J	CF-RB-02	2 / 2	N/A	106
Mercury						0 / 2	0.01 - 0.012	0.0055
Nickel						0 / 1	0.32	0.16
Potassium	2200		2220		CF-RB-03	2 / 2	N/A	2210
Selenium	0.24	J	0.24	J	CF-RB-03	1 / 2	0.16	0.16
Silver	0.21	J	0.21	J	CF-RB-03	1 / 2	0.2	0.16
Sodium						0 / 2	1860 - 2030	973
Thallium						0 / 2	0.13	0.065
Zinc	18	J	18.3	J	CF-RB-02	2 / 2	N/A	18
PERCENT LIPIDS	0.8		1.3		CF-RB-03	2 / 2	N/A	1.1
% MOISTURE	75		76.8		CF-RB-03	2 / 2	N/A	76

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-177
CRAYFISH TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter Reach Species	CF-RB-02 Shawsheen River crayfish	CF-RB-03 Shawsheen River crayfish
PCB/Pesticides (ug/Kg)		
4,4'-DDD	0.63 J	0.94 J
4,4'-DDE	4	5.3
Aroclor-1260	5.1	5.2
Metals (mg/Kg)		
Aluminum	9.4 J	10.1 J
Barium	18.3	12.5
Cadmium	0.07 J	0.09 J
Calcium	43300	27300
Chromium	R	0.18 J
Cobalt	0.4 J	0.44 J
Copper	19.2 J	21 J
Iron	54.7	78
Manganese	108 J	104 J
Potassium	2200	2220
Selenium	0.16 UJ	0.24 J
Silver	0.2 UJ	0.21 J
Zinc	18.3 J	18 J
PERCENT LIPIDS	0.8	1.3
% MOISTURE	75	76.8

US EPA ARCHIVE DOCUMENT

TABLE 2-178
CRAYFISH TISSUE DATA SUMMARY - REACH 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 2	0.98 - 1.6	0.65
4,4'-DDE						0 / 2	1.7 - 2.2	0.98
4,4'-DDT	0.85	J	1.3		CF-RV-07	2 / 2	N/A	1.1
Aldrin	0.3	J	0.31	J	CF-RV-07	2 / 2	N/A	0.31
alpha-BHC						0 / 2	0.51	0.26
alpha-Chlordane						0 / 2	1.1 - 1.4	0.63
Aroclor-1016						0 / 2	5	2.5
Aroclor-1221						0 / 2	9.9	5.0
Aroclor-1232						0 / 2	5	2.5
Aroclor-1242						0 / 2	5	2.5
Aroclor-1248						0 / 2	5	2.5
Aroclor-1254	15		24		CF-RV-07	2 / 2	N/A	20
Aroclor-1260	15		28		CF-RV-07	2 / 2	N/A	22
beta-BHC						0 / 2	0.51	0.26
delta-BHC						0 / 2	0.51	0.26
Dieldrin	0.81	J	0.88	J	CF-RV-06	2 / 2	N/A	0.85
Endosulfan I						0 / 2	1.1 - 1.4	0.63
Endosulfan II						0 / 2	0.98 - 1	0.50
Endosulfan sulfate	1.4		1.4		CF-RV-07	1 / 2	0.98	0.95
Endrin						0 / 2	0.98 - 1.1	0.52
Endrin aldehyde	1.5		2.9		CF-RV-07	2 / 2	N/A	2.2
Endrin ketone						0 / 2	0.98	0.49
gamma-BHC (lindane)	0.24	J	0.39	J	CF-RV-07	2 / 2	N/A	0.32
gamma-Chlordane						0 / 2	0.51	0.26
Heptachlor						0 / 2	0.51	0.26
Heptachlor epoxide						0 / 2	0.51	0.26
Methoxychlor						0 / 2	5.1	2.6
Toxaphene						0 / 2	51	26
Metals - mg/Kg								
Aluminum	46.7	J	49.1	J	CF-RV-06	2 / 2	N/A	48
Antimony						0 / 2	0.099 - 0.1	0.050
Arsenic	3.1	J	4.4	J	CF-RV-07	2 / 2	N/A	3.8
Barium						0 / 2	14 - 21.2	8.8
Beryllium						0 / 2	0.012	0.0060
Cadmium	0.05	J	0.064	J	CF-RV-07	2 / 2	N/A	0.057
Calcium	26300	J	26300	J	CF-RV-07	1 / 2	20000	18150
Chromium	0.79	J	1	J	CF-RV-07	2 / 2	N/A	0.90
Cobalt	0.41	J	0.56	J	CF-RV-07	2 / 2	N/A	0.49
Copper	49.1	J	59.6	J	CF-RV-07	2 / 2	N/A	54
Cyanide						0 / 2	0.48 - 0.59	0.27
Iron	510	J	645	J	CF-RV-07	2 / 2	N/A	578
Lead	0.48	J	0.55	J	CF-RV-07	2 / 2	N/A	0.52
Magnesium						0 / 2	277 - 333	153
Manganese	65.4	J	112	J	CF-RV-07	2 / 2	N/A	89
Mercury						0 / 2	0.016 - 0.02	0.0090
Nickel						0 / 2	0.13 - 0.14	0.068
Potassium	2070	J	2160	J	CF-RV-07	2 / 2	N/A	2115
Selenium	0.31	J	0.35	J	CF-RV-06	2 / 2	N/A	0.33
Silver	0.056	J	0.056	J	CF-RV-07	1 / 2	0.036	0.037
Sodium						0 / 2	1840 - 1960	950
Thallium						0 / 2	0.13 - 0.14	0.068
Vanadium						0 / 2	0.26 - 0.29	0.14
Zinc	28.4	J	29.1	J	CF-RV-06	2 / 2	N/A	29
PERCENT LIPIDS	0.6		0.9		CF-RV-07	2 / 2	N/A	0.75
% MOISTURE	76		76.7		CF-RV-07	2 / 2	N/A	76

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-179
CRAYFISH TISSUE DATA SUMMARY - REACH 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.8	J	3.8	J	CF-RV-04	2 / 2	N/A	3.3
4,4'-DDE	7.8	J	8.2	J	CF-RV-04	2 / 2	N/A	8.0
4,4'-DDT	1	J	1.1	J	CF-RV-03	2 / 2	N/A	1.1
Aldrin	0.25	J	0.29	J	CF-RV-03	2 / 2	N/A	0.27
alpha-BHC						0 / 2	0.5	0.25
alpha-Chlordane	0.52	J	0.72	J	CF-RV-04	2 / 2	N/A	0.62
Aroclor-1016						0 / 2	5	2.5
Aroclor-1221						0 / 2	9.9	5.0
Aroclor-1232						0 / 2	5	2.5
Aroclor-1242						0 / 2	5	2.5
Aroclor-1248						0 / 2	5	2.5
Aroclor-1254	21	J	23	J	CF-RV-04	2 / 2	N/A	22
Aroclor-1260	41	J	41	J	CF-RV-03	2 / 2	N/A	41
beta-BHC						0 / 2	0.5	0.25
delta-BHC						0 / 2	0.5	0.25
Dieldrin	1.9	J	2.4	J	CF-RV-04	2 / 2	N/A	2.2
Endosulfan I						0 / 2	0.5	0.25
Endosulfan II						0 / 2	0.98 - 2	0.75
Endosulfan sulfate	0.54	J	0.89	J	CF-RV-04	2 / 2	N/A	0.72
Endrin	1.4	J	1.7	J	CF-RV-04	2 / 2	N/A	1.6
Endrin aldehyde	2.8	J	3.1	J	CF-RV-04	2 / 2	N/A	3.0
Endrin ketone						0 / 2	0.98	0.49
gamma-BHC (lindane)						0 / 2	0.5	0.25
gamma-Chlordane	0.25	J	0.25	J	CF-RV-03	1 / 2	0.5	0.25
Heptachlor						0 / 2	0.5	0.25
Heptachlor epoxide						0 / 2	0.5	0.25
Methoxychlor						0 / 2	5	2.5
Toxaphene						0 / 2	50	25
Metals - mg/Kg								
Aluminum	47.8	J	57.6	J	CF-RV-03	2 / 2	N/A	53
Antimony						0 / 1	0.11	0.055
Arsenic	2.7	J	2.7	J	CF-RV-03	2 / 2	N/A	2.7
Barium						0 / 2	19.1 - 20.8	10
Beryllium						0 / 2	0.013	0.0065
Cadmium	0.061	J	0.16	J	CF-RV-03	2 / 2	N/A	0.11
Calcium	25500	J	25600	J	CF-RV-04	2 / 2	N/A	25550
Chromium	1.9	J	2.5	J	CF-RV-03	2 / 2	N/A	2.2
Cobalt	0.43	J	0.65	J	CF-RV-03	2 / 2	N/A	0.54
Copper	59.4	J	65.1	J	CF-RV-04	2 / 2	N/A	62
Cyanide						0 / 2	0.44 - 0.46	0.23
Iron	315	J	370	J	CF-RV-04	2 / 2	N/A	343
Lead	0.94	J	1	J	CF-RV-03	2 / 2	N/A	0.97
Magnesium						0 / 2	330 - 334	166
Manganese	105	J	135	J	CF-RV-03	2 / 2	N/A	120
Mercury	0.02	J	0.02	J	CF-RV-03	1 / 2	0.016	0.014
Nickel						0 / 2	0.16 - 0.25	0.10
Potassium	2010	J	2050	J	CF-RV-04	2 / 2	N/A	2030
Selenium	0.28	J	0.51	J	CF-RV-04	2 / 2	N/A	0.40
Silver						0 / 2	0.039	0.020
Sodium						0 / 2	1640 - 1850	873
Thallium	0.19		0.19		CF-RV-04	1 / 2	0.15	0.13
Vanadium						0 / 2	0.29 - 0.34	0.16
Zinc	27.5	J	28	J	CF-RV-03	2 / 2	N/A	28
PERCENT LIPIDS	0.7		0.9		CF-RV-04	2 / 2	N/A	0.80
% MOISTURE	75.9		78.4		CF-RV-03	2 / 2	N/A	77

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-180
CRAYFISH TISSUE DATA SUMMARY - REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.2	J	4.1		CF-RV-01	3 / 3	N/A	3.3
4,4'-DDE	4.9		7		CF-RV-01	3 / 3	N/A	5.8
4,4'-DDT	1	J	2.2	J	CF-RV-01	3 / 3	N/A	1.4
Aldrin						0 / 3	0.5 - 0.51	0.25
alpha-BHC						0 / 3	0.5 - 0.51	0.25
alpha-Chlordane	1.2		1.8		CF-LK-01	3 / 3	N/A	1.4
Aroclor-1016						0 / 3	4.9 - 5	2.5
Aroclor-1221						0 / 3	5 - 9.9	4.1
Aroclor-1232						0 / 3	4.9 - 5	2.5
Aroclor-1242						0 / 3	4.9 - 5	2.5
Aroclor-1248						0 / 3	4.9 - 5	2.5
Aroclor-1254	12	J	14	J	CF-LK-01	2 / 3	5	10
Aroclor-1260	15		31		CF-RV-01	3 / 3	N/A	24
beta-BHC						0 / 3	0.5 - 0.7	0.29
delta-BHC						0 / 3	0.5 - 0.51	0.25
Dieldrin	1.3	J	1.6	J	CF-LK-01	3 / 3	N/A	1.5
Endosulfan I						0 / 3	0.5 - 0.51	0.25
Endosulfan II						0 / 3	0.98 - 0.99	0.49
Endosulfan sulfate	1.1	J	1.1	J	CF-RV-01	1 / 3	0.98	0.69
Endrin						0 / 3	0.98 - 0.99	0.49
Endrin aldehyde	0.61	J	2.9	J	CF-RV-01	3 / 3	N/A	1.4
Endrin ketone	0.71	J	0.71	J	CF-RV-02	1 / 3	0.98 - 0.99	0.57
gamma-BHC (lindane)						0 / 3	0.5 - 0.51	0.25
gamma-Chlordane	0.4	J	0.83	J	CF-LK-01	3 / 3	N/A	0.59
Heptachlor						0 / 3	0.5 - 0.51	0.25
Heptachlor epoxide	0.36	J	0.85	J	CF-RV-02	2 / 3	0.51	0.49
Methoxychlor						0 / 3	5 - 5.1	2.5
Toxaphene						0 / 3	50 - 51	25
Metals - mg/Kg								
Aluminum	46.9	J	72.8	J	CF-LK-01	3 / 3	N/A	58
Antimony						0 / 3	0.082 - 0.1	0.046
Arsenic	1.1	J	2.1		CF-LK-01	3 / 3	N/A	1.5
Barium	13		18		CF-RV-02	2 / 3	21.8	14
Beryllium						0 / 3	0.0074 - 0.0085	0.0040
Cadmium	0.043	J	0.05	J	CF-RV-02	2 / 2	N/A	0.047
Calcium	23700		44300	J	CF-RV-01	3 / 3	N/A	31267
Chromium	0.72	J	1.2	J	CF-LK-01	3 / 3	N/A	0.89
Cobalt	0.23	J	0.55	J	CF-RV-02	3 / 3	N/A	0.40
Copper	30	J	49.5	J	CF-RV-02	3 / 3	N/A	41
Cyanide						0 / 3	0.46 - 0.55	0.25
Iron	193	J	388		CF-LK-01	3 / 3	N/A	277
Lead	0.54	J	1.5	J	CF-LK-01	3 / 3	N/A	1.0
Magnesium						0 / 3	325 - 416	179
Manganese	44.9	J	146	J	CF-RV-02	3 / 3	N/A	98
Mercury						0 / 3	0.01 - 0.015	0.0065
Nickel						0 / 3	0.17 - 0.23	0.098
Potassium	2030	J	2280		CF-LK-01	3 / 3	N/A	2157
Selenium	0.35	J	0.56	J	CF-RV-01	3 / 3	N/A	0.43
Silver						0 / 3	0.043 - 0.063	0.027
Sodium						0 / 3	1930 - 2090	1000
Thallium						0 / 3	0.11 - 0.15	0.065
Vanadium						0 / 2	0.34 - 0.45	0.20
Zinc	22.7	J	25.9	J	CF-LK-01	3 / 3	N/A	24
PERCENT LIPIDS	0.7		1.1		CF-RV-01	3 / 3	N/A	0.90
% MOISTURE	72.2		78.4		CF-LK-01	3 / 3	N/A	75

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-181
CRAYFISH TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.6	J	1.6	J	CF-RV-05	1 / 1	N/A	1.6
4,4'-DDE	4.6		4.6		CF-RV-05	1 / 1	N/A	4.6
4,4'-DDT	0.71	J	0.71	J	CF-RV-05	1 / 1	N/A	0.71
Aldrin						0 / 1	0.73	0.37
alpha-BHC						0 / 1	0.73	0.37
alpha-Chlordane	0.64	J	0.64	J	CF-RV-05	1 / 1	N/A	0.64
Aroclor-1016						0 / 1	7.2	3.6
Aroclor-1221						0 / 1	14	7.0
Aroclor-1232						0 / 1	7.2	3.6
Aroclor-1242						0 / 1	7.2	3.6
Aroclor-1248						0 / 1	7.2	3.6
Aroclor-1254	14	J	14	J	CF-RV-05	1 / 1	N/A	14
Aroclor-1260	10.55		10.55		CF-RV-05	1 / 1	N/A	11
beta-BHC						0 / 1	0.73	0.37
delta-BHC						0 / 1	0.73	0.37
Dieldrin						0 / 1	1.4	0.70
Endosulfan I	0.54	J	0.54	J	CF-RV-05	1 / 1	N/A	0.54
Endosulfan II						0 / 1	1.4	0.70
Endosulfan sulfate						0 / 1	1.4	0.70
Endrin	1.1	J	1.1	J	CF-RV-05	1 / 1	N/A	1.1
Endrin aldehyde	1.8	J	1.8	J	CF-RV-05	1 / 1	N/A	1.8
Endrin ketone						0 / 1	1.4	0.70
gamma-BHC (lindane)						0 / 1	0.73	0.37
gamma-Chlordane	0.4	J	0.4	J	CF-RV-05	1 / 1	N/A	0.40
Heptachlor						0 / 1	0.73	0.37
Heptachlor epoxide						0 / 1	0.73	0.37
Methoxychlor						0 / 1	7.3	3.7
Toxaphene						0 / 1	73	37
Metals - mg/Kg								
Aluminum	23.85	J	23.85	J	CF-RV-05	1 / 1	N/A	24
Antimony						0 / 1	0.094	0.047
Arsenic						0 / 1	0.48	0.24
Barium						0 / 1	4	2.0
Beryllium						0 / 1	0.012	0.0060
Cadmium	0.0625	J	0.0625	J	CF-RV-05	1 / 1	N/A	0.063
Calcium	18900	J	18900	J	CF-RV-05	1 / 1	N/A	18900
Chromium	0.2	J	0.2	J	CF-RV-05	1 / 1	N/A	0.20
Cobalt	0.27	J	0.27	J	CF-RV-05	1 / 1	N/A	0.27
Copper	40.55	J	40.55	J	CF-RV-05	1 / 1	N/A	41
Cyanide						0 / 1	0.38	0.19
Iron	88.25	J	88.25	J	CF-RV-05	1 / 1	N/A	88
Lead	0.2125	J	0.2125	J	CF-RV-05	1 / 1	N/A	0.21
Magnesium						0 / 1	184	92
Manganese	79.1	J	79.1	J	CF-RV-05	1 / 1	N/A	79
Mercury						0 / 1	0.016	0.0080
Nickel						0 / 1	0.083	0.042
Potassium	2100	J	2100	J	CF-RV-05	1 / 1	N/A	2100
Selenium	0.515	J	0.515	J	CF-RV-05	1 / 1	N/A	0.52
Silver	0.0635	J	0.0635	J	CF-RV-05	1 / 1	N/A	0.064
Sodium						0 / 1	1710	855
Thallium						0 / 1	0.13	0.065
Vanadium						0 / 1	0.084	0.042
Zinc	18.35	J	18.35	J	CF-RV-05	1 / 1	N/A	18
PERCENT LIPIDS	0.9		0.9		CF-RV-05	1 / 1	N/A	0.90
% MOISTURE	80.7		80.7		CF-RV-05	1 / 1	N/A	81

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-182
CRAYFISH TISSUE DATA SUMMARY - NON REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.6	J	4.1		CF-RV-01	6 / 8	0.98 - 1.6	2.4
4,4'-DDE	4.6		8.2	J	CF-RV-04	6 / 8	1.7 - 2.2	5.0
4,4'-DDT	0.71	J	2.2	J	CF-RV-01	8 / 8	N/A	1.2
Aldrin	0.25	J	0.31	J	CF-RV-07	4 / 8	0.5 - 0.73	0.28
alpha-BHC						0 / 8	0.5 - 0.73	0.27
alpha-Chlordane	0.52	J	1.8		CF-LK-01	6 / 8	1.1 - 1.4	0.93
Aroclor-1016						0 / 8	4.9 - 7.2	2.6
Aroclor-1221						0 / 8	5 - 14	4.9
Aroclor-1232						0 / 8	4.9 - 7.2	2.6
Aroclor-1242						0 / 8	4.9 - 7.2	2.6
Aroclor-1248						0 / 8	4.9 - 7.2	2.6
Aroclor-1254	12	J	24		CF-RV-07	7 / 8	5	16
Aroclor-1260	10.55		41	J	CF-RV-03	8 / 8	N/A	26
beta-BHC						0 / 8	0.5 - 0.73	0.28
delta-BHC						0 / 8	0.5 - 0.73	0.27
Dieldrin	0.81	J	2.4	J	CF-RV-04	7 / 8	1.4	1.4
Endosulfan I	0.54	J	0.54	J	CF-RV-05	1 / 8	0.5 - 1.4	0.38
Endosulfan II						0 / 8	0.98 - 2	0.58
Endosulfan sulfate	0.54	J	1.4		CF-RV-07	4 / 8	0.98 - 1.4	0.76
Endrin	1.1	J	1.7	J	CF-RV-04	3 / 8	0.98 - 1.1	0.84
Endrin aldehyde	0.61	J	3.1	J	CF-RV-04	8 / 8	N/A	2.0
Endrin ketone	0.71	J	0.71	J	CF-RV-02	1 / 8	0.98 - 1.4	0.54
gamma-BHC (lindane)	0.24	J	0.39	J	CF-RV-07	2 / 8	0.5 - 0.73	0.28
gamma-Chlordane	0.25	J	0.83	J	CF-LK-01	5 / 8	0.5 - 0.51	0.40
Heptachlor						0 / 8	0.5 - 0.73	0.27
Heptachlor epoxide	0.36	J	0.85	J	CF-RV-02	2 / 8	0.5 - 0.73	0.36
Methoxychlor						0 / 8	5 - 7.3	2.7
Toxaphene						0 / 8	50 - 73	27
Metals - mg/Kg								
Aluminum	23.85	J	72.8	J	CF-LK-01	8 / 8	N/A	50
Antimony						0 / 7	0.082 - 0.11	0.048
Arsenic	1.1	J	4.4	J	CF-RV-07	7 / 8	0.48	2.2
Barium	13		18		CF-RV-02	2 / 8	4 - 21.8	10
Beryllium						0 / 8	0.0074 - 0.013	0.0054
Cadmium	0.043	J	0.16	J	CF-RV-03	7 / 7	N/A	0.070
Calcium	18900	J	44300	J	CF-RV-01	7 / 8	20000	25013
Chromium	0.2	J	2.5	J	CF-RV-03	8 / 8	N/A	1.1
Cobalt	0.23	J	0.65	J	CF-RV-03	8 / 8	N/A	0.44
Copper	30	J	65.1	J	CF-RV-04	8 / 8	N/A	50
Cyanide						0 / 8	0.38 - 0.59	0.24
Iron	88.25	J	645	J	CF-RV-07	8 / 8	N/A	345
Lead	0.2125	J	1.5	J	CF-LK-01	8 / 8	N/A	0.78
Magnesium						0 / 8	184 - 416	158
Manganese	44.9	J	146	J	CF-RV-02	8 / 8	N/A	99
Mercury	0.02	J	0.02	J	CF-RV-03	1 / 8	0.01 - 0.02	0.0092
Nickel						0 / 8	0.083 - 0.25	0.085
Potassium	2010	J	2280		CF-LK-01	8 / 8	N/A	2108
Selenium	0.28	J	0.56	J	CF-RV-01	8 / 8	N/A	0.41
Silver	0.056	J	0.0635	J	CF-RV-05	2 / 8	0.036 - 0.063	0.032
Sodium						0 / 8	1640 - 2090	938
Thallium	0.19		0.19		CF-RV-04	1 / 8	0.11 - 0.15	0.083
Vanadium						0 / 7	0.084 - 0.45	0.15
Zinc	18.35	J	29.1	J	CF-RV-06	8 / 8	N/A	25
PERCENT LIPIDS	0.6		1.1		CF-RV-01	8 / 8	N/A	0.84
% MOISTURE	72.2		80.7		CF-RV-05	8 / 8	N/A	77

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-183
CRAYFISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	CF-LK-01	CF-RV-01	CF-RV-02	CF-RV-03	CF-RV-04	CF-RV-05	CF-RV-06	CF-RV-07
Reach	3	3	3	2	2	5	1	1
Species	crayfish	crayfish	crayfish	crayfish	crayfish	crayfish	crayfish	crayfish
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	3.5 J	4.1	2.2 J	2.8 J	3.8 J	1.6 J	0.98 U	1.6 U
4,4'-DDE	5.4	7	4.9	7.8 J	8.2 J	4.6	1.7 U	2.2 U
4,4'-DDT	1 J	2.2 J	1.1 J	1.1 J	1 J	0.71 J	0.85 J	1.3
Aldrin	0.51 U	0.51 U	0.5 U	0.29 J	0.25 J	0.73 U	0.3 J	0.31 J
alpha-Chlordane	1.8	1.3 J	1.2	0.52 J	0.72 J	0.64 J	1.1 U	1.4 U
Aroclor-1254	14 J	5 U	12 J	21 J	23 J	14 J	15	24
Aroclor-1260	15	31	25	41 J	41 J	10.55	15	28
Dieldrin	1.6	1.6 J	1.3 J	1.9 J	2.4 J	1.4 U	0.88 J	0.81 J
Endosulfan I	0.51 U	0.51 U	0.5 U	0.5 U	0.5 U	0.54 J	1.1 U	1.4 U
Endosulfan sulfate	0.98 U	1.1 J	0.98 U	0.54 J	0.89 J	1.4 U	0.98 U	1.4
Endrin	0.98 U	0.99 UJ	0.98 U	1.4 J	1.7 J	1.1 J	0.98 U	1.1 U
Endrin aldehyde	0.61 J	2.9 J	0.74 J	2.8 J	3.1 J	1.8 J	1.5	2.9
Endrin ketone	0.98 U	0.99 U	0.71 J	0.98 U	0.98 U	1.4 U	0.98 U	0.98 U
gamma-BHC (lindane)	0.51 U	0.51 U	0.5 U	0.5 U	0.5 U	0.73 U	0.24 J	0.39 J
gamma-Chlordane	0.83 J	0.4 J	0.55 J	0.25 J	0.5 U	0.4 J	0.51 U	0.51 U
Heptachlor epoxide	0.36 J	0.51 U	0.85 J	0.5 U	0.5 U	0.73 U	0.51 U	0.51 U
Metals (mg/Kg)								
Aluminum	72.8 J	46.9 J	55.3 J	57.6 J	47.8 J	23.85 J	49.1 J	46.7 J
Arsenic	2.1	1.1 J	1.4	2.7 J	2.7 J	0.48 U	3.1 J	4.4 J
Barium	13	21.8 U	18	20.8 U	19.1 U	4 UJ	14 UJ	21.2 UJ
Cadmium	0.043 J	R	0.05 J	0.16 J	0.061 J	0.0625 J	0.05 J	0.064 J
Calcium	25800	44300 J	23700	25500 J	25600 J	18900 J	20000 UJ	26300 J
Chromium	1.2 J	0.72 J	0.75 J	2.5 J	1.9 J	0.2 J	0.79 J	1 J
Cobalt	0.23 J	0.41 J	0.55 J	0.65 J	0.43 J	0.27 J	0.41 J	0.56 J
Copper	30 J	44.1 J	49.5 J	59.4 J	65.1 J	40.55 J	49.1 J	59.6 J
Iron	388	193 J	251	315 J	370 J	88.25 J	510 J	645 J
Lead	1.5 J	0.54 J	1 J	1 J	0.94 J	0.2125 J	0.48 J	0.55 J
Manganese	44.9 J	104 J	146 J	135 J	105 J	79.1 J	65.4 J	112 J
Mercury	0.014 UJ	0.015 UJ	0.01 UJ	0.02 J	0.016 UJ	0.016 UJ	0.016 UJ	0.02 UJ
Potassium	2280	2030 J	2160	2010 J	2050 J	2100 J	2070 J	2160 J
Selenium	0.38 J	0.56 J	0.35 J	0.28 J	0.51 J	0.515 J	0.35 J	0.31 J
Silver	0.043 UJ	0.063 U	0.058 UJ	0.039 UJ	0.039 UJ	0.0635 J	0.036 UJ	0.056 J
Thallium	0.11 U	0.15 U	0.13 U	0.15 U	0.19	0.13 U	0.13 U	0.14 U
Zinc	25.9 J	22.7 J	23.2 J	28 J	27.5 J	18.35 J	29.1 J	28.4 J
PERCENT LIPIDS	0.9	1.1	0.7	0.7	0.9	.9	0.6	0.9
% MOISTURE	78.4	72.2	75	78.4	75.9	80.7	76	76.7

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TABLE 2-184
SMALL FISH TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.82	J	3.2	J	SF-LB-01	5 / 6	1.7	2.0
4,4'-DDE	5.5		24		SF-LB-01	6 / 6	N/A	13
4,4'-DDT	0.79	J	2.5	J	SF-LB-03	3 / 6	0.98 - 5	1.5
Aldrin						0 / 6	0.5 - 2.6	0.66
alpha-BHC						0 / 6	0.5 - 2.6	0.66
alpha-Chlordane	0.33	J	1.3	J	SF-LB-01	4 / 6	0.86 - 2.5	0.80
Aroclor-1016						0 / 6	5 - 25	6.5
Aroclor-1221						0 / 6	9.9 - 50	13
Aroclor-1232						0 / 6	5 - 25	6.5
Aroclor-1242						0 / 6	5 - 25	6.5
Aroclor-1248						0 / 6	5 - 25	6.5
Aroclor-1254						0 / 6	5 - 25	6.5
Aroclor-1260	9.2	J	33		SF-LB-01	6 / 6	N/A	19
beta-BHC						0 / 6	0.5 - 2.6	0.66
delta-BHC						0 / 6	0.5 - 2.6	0.66
Dieldrin						0 / 6	0.98 - 5	1.3
Endosulfan I	0.26	J	0.88	J	SF-LB-04	2 / 6	0.5 - 2.6	0.73
Endosulfan II						0 / 6	0.98 - 5	1.3
Endosulfan sulfate						0 / 6	0.98 - 5	1.3
Endrin						0 / 6	0.98 - 5	1.3
Endrin aldehyde						0 / 6	0.98 - 5	1.3
Endrin ketone						0 / 6	0.98 - 5	1.3
gamma-BHC (lindane)						0 / 6	0.5 - 2.6	0.66
gamma-Chlordane						0 / 6	0.28 - 2.6	0.65
Heptachlor						0 / 6	0.5 - 2.6	0.66
Heptachlor epoxide	0.63	J	1.3	J	SF-LB-04	2 / 6	0.5 - 2.6	0.86
Methoxychlor						0 / 6	5 - 26	6.6
Toxaphene						0 / 6	50 - 260	66
Metals - mg/Kg								
Aluminum						0 / 6	1.3 - 9.2	2.4
Antimony						0 / 6	0.085 - 0.11	0.051
Arsenic						0 / 6	0.081 - 0.11	0.049
Barium						0 / 6	2.6 - 5.1	2.1
Beryllium						0 / 6	0.0077 - 0.013	0.0051
Cadmium	0.017	J	0.018	J	SF-LB-01	3 / 6	0.012 - 0.015	0.012
Calcium	20500	J	24700	J	SF-LB-02	3 / 6	10700 - 19900	15358
Chromium	0.3	J	0.35	J	SF-LB-02	4 / 6	0.2 - 0.28	0.26
Cobalt	0.038	J	0.05	J	SF-LB-03	3 / 6	0.041 - 0.05	0.034
Copper	0.71	J	0.71	J	SF-LB-04	1 / 6	0.47 - 0.58	0.34
Cyanide						0 / 6	0.39 - 0.49	0.23
Iron	29.6	J	50.4	J	SF-LB-01	4 / 6	39.2 - 50	35
Lead						0 / 6	0.058 - 0.075	0.035
Magnesium						0 / 6	376 - 571	250
Manganese	37	J	37	J	SF-LB-03	1 / 6	13.4 - 19.5	13
Mercury	0.062	J	0.098	J	SF-LB-03	4 / 6	0.024 - 0.035	0.059
Nickel						0 / 6	0.038 - 0.05	0.023
Potassium	2770	J	3400	J	SF-LB-05	6 / 6	N/A	3017
Selenium	0.55	J	0.68	J	SF-LB-05	6 / 6	N/A	0.62
Silver	0.035	J	0.035	J	SF-LB-01	1 / 6	0.033 - 0.04	0.022
Sodium						0 / 6	1100 - 1390	644
Thallium						0 / 6	0.12 - 0.15	0.069
Vanadium						0 / 2	0.13 - 0.24	0.093
Zinc	13.9	J	38.3	J	SF-LB-02	6 / 6	N/A	28
PERCENT LIPIDS	0.8		2.2		SF-LB-03	6 / 6	N/A	1.5
% MOISTURE	72.3		79.3		SF-LB-06	6 / 6	N/A	76

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-185
SMALL FISH TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SF-LB-01	SF-LB-02	SF-LB-03	SF-LB-04	SF-LB-05	SF-LB-06
Reach	7	7	7	7	7	7
Species	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed	brown bullhead	brown bullhead
SVOCs (ug/Kg)						
No Detections						
PCB/Pesticides (ug/Kg)						
4,4'-DDD	3.2 J	0.89 J	2.9 J	3.1	0.82 J	1.7 U
4,4'-DDE	24	8.3	20	15 J	6.9	5.5
4,4'-DDT	5 U	0.79 J	2.5 J	1.8 J	0.98 U	1.7 U
alpha-Chlordane	1.3 J	0.55 J	2.5 U	0.94 J	0.33 J	0.86 U
Aroclor-1260	33	9.7	26	20	18	9.2 J
Endosulfan I	2.6 U	0.26 J	2.5 U	0.88 J	0.5 U	0.86 U
Heptachlor epoxide	2.6 U	0.63 J	2.5 U	1.3 J	0.5 U	0.86 U
Metals (mg/Kg)						
Cadmium	0.018 J	0.017 J	0.017 J	0.015 UJ	0.012 UJ	0.015 U
Calcium	20500 J	24700 J	19900 UJ	23900 J	15500 UJ	10700 UJ
Chromium	0.34 J	0.35 J	0.3 J	0.34 J	0.28 UJ	0.2 UJ
Cobalt	0.038 J	0.048 J	0.05 J	0.05 UJ	0.041 UJ	0.049 UJ
Copper	0.51 UJ	0.58 UJ	0.58 UJ	0.71 J	0.47 UJ	0.54 U
Iron	50.4 J	39.2 UJ	50 UJ	39.6 J	47.7 J	29.6 J
Manganese	14 UJ	13.4 UJ	37 J	19.5 UJ	16.2 UJ	14.7 U
Mercury	0.088 J	0.062 J	0.098 J	0.075	0.024 UJ	0.035 UJ
Potassium	2850 J	2770 J	2910 J	2930 J	3400 J	3240 J
Selenium	0.61 J	0.61 J	0.55 J	0.63 J	0.68 J	0.64 J
Silver	0.035 J	0.039 UJ	0.04 UJ	0.04 UJ	0.033 UJ	0.039 UJ
Zinc	32.4 J	38.3 J	33.1 J	34.1 J	13.9 J	15.3
PERCENT LIPIDS	1.8	1.3	2.2	1.9	0.8	1
% MOISTURE	72.3	73.9	74	76.3	79.2	79.3

US EPA ARCHIVE DOCUMENT

TABLE 2-186
SMALL FISH TISSUE DATA SUMMARY - REACH 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.2		26		SF-RV-12	4 / 4	N/A	15
4,4'-DDE	9		29		SF-RV-12	4 / 4	N/A	18
4,4'-DDT	2.5	J	3.6	J	SF-RV-12	3 / 4	2.9	2.6
Aldrin	0.59	J	0.59	J	SF-RV-10	1 / 4	1.5 - 2.3	0.87
alpha-BHC						0 / 4	1 - 2.3	0.85
alpha-Chlordane	3.9		22		SF-RV-12	3 / 4	1	11
Aroclor-1016						0 / 4	9.9 - 22	8.4
Aroclor-1221						0 / 4	20 - 44	17
Aroclor-1232						0 / 4	9.9 - 22	8.4
Aroclor-1242						0 / 4	9.9 - 22	8.4
Aroclor-1248	27	J	47		SF-RV-10	4 / 4	N/A	37
Aroclor-1254	46	J	110		SF-RV-12	4 / 4	N/A	73
Aroclor-1260	45		100		SF-RV-12	4 / 4	N/A	78
beta-BHC	1.4		1.4		SF-RV-10	1 / 4	1.5 - 2.3	1.1
delta-BHC						0 / 4	1 - 2.3	0.85
Dieldrin	4.9		7.2		LF-RV-18	3 / 4	2.9	5.0
Endosulfan I	1.3	J	2.5	J	SF-RV-12	3 / 4	2	1.6
Endosulfan II	4	J	4.8	J	SF-RV-12	2 / 4	2.9 - 4	3.1
Endosulfan sulfate	1.2	J	1.2	J	SF-RV-10	1 / 4	2.9 - 4.4	1.7
Endrin	1.6	J	1.6	J	SF-RV-10	1 / 4	2.9 - 4.4	1.8
Endrin aldehyde						0 / 4	2 - 4.4	1.7
Endrin ketone	1.9	J	1.9	J	SF-RV-10	1 / 4	2.9 - 4.4	1.9
gamma-BHC (lindane)						0 / 4	1 - 2.3	0.85
gamma-Chlordane	2.8		15		SF-RV-12	4 / 4	N/A	7.7
Heptachlor						0 / 4	1 - 2.3	0.85
Heptachlor epoxide	1.3	J	4.6	J	SF-RV-10	4 / 4	N/A	2.9
Methoxychlor						0 / 4	10 - 23	8.5
Toxaphene						0 / 4	100 - 230	85
Metals - mg/Kg								
Aluminum	8.3	J	8.3	J	SF-RV-13	1 / 5	6 - 21.4	6.2
Antimony						0 / 4	0.11 - 0.15	0.063
Arsenic	0.59		1.4		SF-RV-09	3 / 5	0.23 - 0.89	0.71
Barium						0 / 5	0.59 - 1.3	0.49
Beryllium						0 / 5	0.0085 - 0.01	0.0048
Cadmium	0.016	J	0.037	J	SF-RV-09	5 / 5	N/A	0.024
Calcium						0 / 5	7170 - 18400	6827
Chromium	0.22	J	0.63	J	SF-RV-09	4 / 5	0.42	0.39
Cobalt	0.056	J	0.12	J	SF-RV-09	4 / 5	0.05	0.06
Copper	0.54		1.7	J	SF-RV-09	5 / 5	N/A	1.1
Cyanide						0 / 5	0.38 - 0.5	0.22
Iron	48.3	J	236	J	SF-RV-09	5 / 5	N/A	134
Lead						0 / 5	0.078 - 0.35	0.079
Magnesium						0 / 5	341 - 539	221
Manganese						0 / 5	6.4 - 23.5	7.1
Mercury	0.015		0.032		SF-RV-09	4 / 5	0.013	0.020
Nickel						0 / 5	0.036 - 0.05	0.023
Potassium	2990	J	3410	J	SF-RV-12	5 / 5	N/A	3212
Selenium	0.68	J	0.96	J	SF-RV-10	5 / 5	N/A	0.82
Silver						0 / 5	0.029 - 0.04	0.018
Sodium						0 / 5	937 - 1280	538
Thallium						0 / 5	0.11 - 0.15	0.068
Vanadium						0 / 2	0.056 - 0.18	0.059
Zinc	22.1	J	35.3	J	SF-RV-10	5 / 5	N/A	28
PERCENT LIPIDS	1.4		3.4		SF-RV-09	5 / 5	N/A	2.1
% MOISTURE	74.5		79.6		SF-RV-13	5 / 5	N/A	78

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-187
SMALL FISH TISSUE DATA SUMMARY - REACH 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	14	J	27	J	LF-RV-17	2 / 2	N/A	21
4,4'-DDE	15	J	21	J	LF-RV-17	2 / 2	N/A	18
4,4'-DDT	1.9	J	1.9	J	SF-RV-06	1 / 2	9.9	3.4
Aldrin						0 / 2	1 - 5.1	1.5
alpha-BHC						0 / 2	1 - 5.1	1.5
alpha-Chlordane	10	J	25	J	LF-RV-17	2 / 2	N/A	18
Aroclor-1016						0 / 2	10 - 50	15
Aroclor-1221						0 / 2	20 - 100	30
Aroclor-1232						0 / 2	10 - 50	15
Aroclor-1242						0 / 2	10 - 50	15
Aroclor-1248						0 / 2	10 - 50	15
Aroclor-1254	41	J	93	J	LF-RV-17	2 / 2	N/A	67
Aroclor-1260	46	J	55		LF-RV-17	2 / 2	N/A	51
beta-BHC						0 / 2	1 - 5.1	1.5
delta-BHC						0 / 2	1 - 5.1	1.5
Dieldrin	5.3	J	12	J	LF-RV-17	2 / 2	N/A	8.7
Endosulfan I						0 / 2	1 - 5.1	1.5
Endosulfan II						0 / 2	2 - 9.9	3.0
Endosulfan sulfate						0 / 2	2 - 9.9	3.0
Endrin	2.8	J	2.8	J	SF-RV-06	1 / 2	9.9	3.9
Endrin aldehyde	1.5	J	1.5	J	SF-RV-06	1 / 2	9.9	3.2
Endrin ketone						0 / 2	2 - 9.9	3.0
gamma-BHC (lindane)						0 / 2	1 - 5.1	1.5
gamma-Chlordane	6.1	J	15	J	LF-RV-17	2 / 2	N/A	11
Heptachlor						0 / 2	1 - 5.1	1.5
Heptachlor epoxide	4.1	J	4.1	J	LF-RV-17	1 / 2	1	2.3
Methoxychlor						0 / 2	10 - 51	15
Toxaphene						0 / 2	100 - 510	153
Metals - mg/Kg								
Aluminum	19.7	J	19.7	J	SF-RV-06	1 / 4	3.8 - 15.3	8.3
Antimony						0 / 4	0.085 - 0.11	0.051
Arsenic						0 / 4	0.2 - 0.7	0.22
Barium						0 / 4	0.81 - 2.5	0.74
Beryllium						0 / 4	0.0077 - 0.012	0.0050
Cadmium	0.016	J	0.065		SF-RV-08	4 / 4	N/A	0.033
Calcium						0 / 4	8290 - 15800	5761
Chromium	0.33	J	0.66	J	SF-RV-07	4 / 4	N/A	0.47
Cobalt	0.05	J	0.12	J	SF-RV-07	3 / 4	0.05	0.068
Copper	1.1		1.1		SF-RV-06	1 / 4	0.44 - 2.2	0.76
Cyanide						0 / 4	0.53 - 0.66	0.28
Iron	60.2		60.2		SF-RV-06	1 / 4	23 - 71.3	32
Lead	0.38	J	0.38	J	SF-RV-06	1 / 4	0.074 - 0.21	0.15
Magnesium						0 / 4	381 - 505	211
Manganese						0 / 4	6.6 - 18.8	5.6
Mercury	0.028	J	0.054	J	SF-RV-08	2 / 4	0.02 - 0.022	0.026
Nickel						0 / 4	0.046 - 0.06	0.026
Potassium	3000	J	3600	J	LF-RV-17	4 / 4	N/A	3233
Selenium	0.46	J	0.74	J	SF-RV-06	4 / 4	N/A	0.60
Silver						0 / 4	0.031 - 0.04	0.019
Sodium						0 / 4	965 - 1130	506
Thallium						0 / 4	0.12 - 0.15	0.070
Vanadium						0 / 3	0.12 - 0.17	0.070
Zinc	25.9	J	42		SF-RV-08	4 / 4	N/A	32
PERCENT LIPIDS	0.9		2.6		LF-RV-17	4 / 4	N/A	1.8
% MOISTURE	76.9		81.7		SF-RV-07	4 / 4	N/A	79

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-188
SMALL FISH TISSUE DATA SUMMARY - REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	16	J	45	J	LF-LK-01	9 / 10	9.8	27
4,4'-DDE	18	J	43	J	LF-LK-02	10 / 10	N/A	31
4,4'-DDT	2	J	12	J	LF-LK-04	10 / 10	N/A	7.0
Aldrin	0.68	J	2.3	J	SF-LK-02	5 / 10	1 - 5.1	1.7
alpha-BHC						0 / 10	1 - 5.1	1.5
alpha-Chlordane	8.9	J	42	J	LF-LK-01	10 / 10	N/A	24
Aroclor-1016						0 / 10	9.9 - 50	14
Aroclor-1221						0 / 10	20 - 99	26
Aroclor-1232						0 / 10	9.9 - 50	14
Aroclor-1242						0 / 10	9.9 - 50	14
Aroclor-1248	27	J	34	J	LF-LK-04	2 / 10	9.9 - 50	20
Aroclor-1254	50	J	160	J	LF-LK-01	9 / 10	50	103
Aroclor-1260	53	J	110	J	LF-LK-02	10 / 10	N/A	84
beta-BHC						0 / 10	1 - 5.1	1.5
delta-BHC	1.2	J	1.4	J	SF-LK-02	2 / 10	1 - 5.1	1.5
Dieldrin	4.2	J	39	J	LF-LK-01	10 / 10	N/A	20
Endosulfan I	0.57	J	0.57	J	SF-LK-05	1 / 10	1 - 5.1	1.5
Endosulfan II						0 / 10	2 - 9.8	3.1
Endosulfan sulfate	2.3	J	2.6	J	LF-LK-04	2 / 10	2 - 9.8	3.2
Endrin	2.1	J	8.2	J	SF-LK-03	5 / 10	2 - 9.8	4.5
Endrin aldehyde	1.9	J	3	J	SF-LK-02	4 / 10	2 - 9.8	3.2
Endrin ketone	2.3	J	2.7	J	LF-LK-04	2 / 10	2 - 9.8	3.2
gamma-BHC (lindane)						0 / 10	1 - 5.1	1.5
gamma-Chlordane	4.1	J	20	J	LF-LK-01	9 / 10	5.1	11
Heptachlor						0 / 10	1 - 5.1	1.5
Heptachlor epoxide	0.67	J	15	J	LF-LK-01	9 / 10	5.1	6.6
Methoxychlor						0 / 10	10 - 51	15
Toxaphene						0 / 10	100 - 510	148
Metals - mg/Kg								
Aluminum	5.5	J	66.7	J	SF-LK-02	6 / 10	2.3 - 4.4	13
Antimony	0.14		0.14		SF-LK-05	1 / 7	0.098 - 0.11	0.066
Arsenic						0 / 10	0.095 - 0.53	0.15
Barium	0.63		1.8		LF-LK-05	5 / 10	0.47 - 0.93	0.80
Beryllium						0 / 10	0.0055 - 0.013	0.0051
Cadmium	0.015		0.084	J	LF-LK-04	9 / 9	N/A	0.031
Calcium	21900		21900		LF-LK-04	1 / 10	9200 - 18100	8210
Chromium	0.25	J	0.55	J	SF-LK-05	10 / 10	N/A	0.36
Cobalt	0.044	J	0.088	J	SF-LK-01	5 / 10	0.045 - 0.049	0.043
Copper	0.55	J	1	J	LF-LK-01	9 / 10	0.94	0.74
Cyanide						0 / 10	0.37 - 0.57	0.24
Iron	19.1		76.3	J	SF-LK-05	10 / 10	N/A	38
Lead	0.076	J	0.68	J	SF-LK-01	2 / 10	0.054 - 0.39	0.12
Magnesium						0 / 10	343 - 521	209
Manganese						0 / 10	4.3 - 9.6	3.3
Mercury	0.018	J	0.041	J	SF-LK-02	3 / 10	0.016 - 0.051	0.019
Nickel						0 / 10	0.036 - 0.072	0.024
Potassium	2830	J	3350		LF-LK-02	10 / 10	N/A	3101
Selenium	0.65	J	0.87	J	LF-LK-01	10 / 10	N/A	0.75
Silver						0 / 10	0.031 - 0.067	0.020
Sodium						0 / 10	610 - 1130	484
Thallium						0 / 10	0.11 - 0.16	0.070
Vanadium						0 / 7	0.15 - 0.3	0.11
Zinc	21		34.7	J	SF-LK-03	10 / 10	N/A	26
PERCENT LIPIDS	1.1		5.1		LF-LK-01	10 / 10	N/A	3.1
% MOISTURE	66.6		83.5		SF-LK-04	10 / 10	N/A	73

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-189
SMALL FISH TISSUE DATA SUMMARY - REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	17		34		SF-LK-09	4 / 4	N/A	27
4,4'-DDE	37		37		SF-LK-09	1 / 4	18 - 32	19
4,4'-DDT	2.3		5.2		SF-LK-07	3 / 4	5	3.8
Aldrin	0.61	J	1.4	J	SF-LK-09	2 / 4	2.5 - 2.6	1.1
alpha-BHC						0 / 4	1 - 2.6	1.1
alpha-Chlordane	17		23		SF-LK-06	3 / 4	9.1	16
Aroclor-1016						0 / 4	9.9 - 25	11
Aroclor-1221						0 / 4	20 - 50	21
Aroclor-1232						0 / 4	9.9 - 25	11
Aroclor-1242						0 / 4	9.9 - 25	11
Aroclor-1248						0 / 4	9.9 - 25	11
Aroclor-1254	62		130		SF-LK-09	4 / 4	N/A	97
Aroclor-1260	30		66		SF-LK-09	4 / 4	N/A	44
beta-BHC						0 / 4	1 - 2.6	1.1
delta-BHC						0 / 4	1 - 2.6	1.1
Dieldrin	4.3	J	10		SF-LK-09	4 / 4	N/A	7.1
Endosulfan I						0 / 4	1 - 2.6	1.1
Endosulfan II	2.4	J	2.4	J	SF-LK-07	1 / 4	2 - 5	2.1
Endosulfan sulfate	1.5	J	1.5	J	SF-LK-08	1 / 4	4.9 - 5	2.2
Endrin						0 / 4	3.8 - 7.8	2.7
Endrin aldehyde	2.2		4.9	J	SF-LK-09	2 / 4	4.9 - 5	3.0
Endrin ketone						0 / 4	2 - 5	2.1
gamma-BHC (lindane)						0 / 4	1 - 2.6	1.1
gamma-Chlordane	2		15		SF-LK-06	4 / 4	N/A	6.2
Heptachlor						0 / 4	1 - 2.6	1.1
Heptachlor epoxide	0.98	J	1.8	J	SF-LK-07	4 / 4	N/A	1.5
Methoxychlor						0 / 4	10 - 26	11
Toxaphene						0 / 4	100 - 260	109
Metals - mg/Kg								
Aluminum	2.8	J	5.9	J	SF-LK-06	4 / 4	N/A	5.0
Antimony						0 / 4	0.094 - 0.11	0.052
Arsenic						0 / 4	0.11 - 0.18	0.079
Barium						0 / 4	0.74 - 1.5	0.49
Beryllium						0 / 4	0.012 - 0.014	0.0065
Cadmium	0.013	J	0.017	J	SF-LK-08	3 / 4	0.015	0.013
Calcium	27800	J	27800	J	SF-LK-08	1 / 4	12100 - 17100	12475
Chromium	0.24	J	0.44	J	SF-LK-08	4 / 4	N/A	0.32
Cobalt						0 / 4	0.043 - 0.05	0.024
Copper	0.52	J	0.94	J	SF-LK-08	4 / 4	N/A	0.74
Cyanide						0 / 4	0.45 - 0.48	0.23
Iron	23.2	J	37.1	J	SF-LK-09	4 / 4	N/A	31
Lead						0 / 4	0.064 - 0.075	0.036
Magnesium						0 / 4	436 - 653	256
Manganese						0 / 4	6 - 11.6	4.0
Mercury	0.022	J	0.037	J	SF-LK-08	3 / 4	0.02	0.026
Nickel						0 / 4	0.043 - 0.05	0.024
Potassium	2970	J	3350	J	SF-LK-06	4 / 4	N/A	3115
Selenium	0.54	J	0.62	J	SF-LK-07	4 / 4	N/A	0.58
Silver						0 / 4	0.034 - 0.04	0.019
Sodium						0 / 4	803 - 1330	565
Thallium						0 / 4	0.13 - 0.15	0.071
Vanadium						0 / 2	0.057 - 0.077	0.034
Zinc	23.3	J	29.9	J	SF-LK-08	4 / 4	N/A	26
PERCENT LIPIDS	1.5		2.9		SF-LK-07	4 / 4	N/A	2.4
% MOISTURE	74		75		SF-LK-06	4 / 4	N/A	75

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-190
SMALL FISH TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	18		29		SF-RV-04	6 / 6	N/A	23
4,4'-DDE	24		44		SF-RV-04	6 / 6	N/A	32
4,4'-DDT	3.6	J	9.3		SF-RV-04	6 / 6	N/A	6.3
Aldrin	3.1		3.1		SF-RV-05	1 / 6	2.5 - 2.6	1.6
alpha-BHC						0 / 6	2.5 - 2.6	1.3
alpha-Chlordane	11		29		SF-RV-05	6 / 6	N/A	19
Aroclor-1016						0 / 6	25	13
Aroclor-1221						0 / 6	25 - 50	23
Aroclor-1232						0 / 6	25	13
Aroclor-1242						0 / 6	25	13
Aroclor-1248						0 / 6	25	13
Aroclor-1254	75		110		SF-RV-04	5 / 6	25	78
Aroclor-1260	43		65		SF-RV-04	6 / 6	N/A	53
beta-BHC						0 / 6	2.5 - 2.6	1.3
delta-BHC						0 / 6	2.5 - 2.6	1.3
Dieldrin	6.2		8		SF-RV-05	6 / 6	N/A	6.8
Endosulfan I						0 / 6	2.5 - 2.6	1.3
Endosulfan II						0 / 6	4.9 - 5	2.5
Endosulfan sulfate						0 / 6	4.9 - 5	2.5
Endrin	3.7	J	4.5	J	SF-RV-01	3 / 6	4.9 - 5	3.3
Endrin aldehyde						0 / 6	4.9 - 5	2.5
Endrin ketone						0 / 6	4.9 - 5	2.5
gamma-BHC (lindane)						0 / 6	2.5 - 2.6	1.3
gamma-Chlordane	2.6		17		SF-RV-05	6 / 6	N/A	9.0
Heptachlor						0 / 6	2.5 - 2.6	1.3
Heptachlor epoxide	1.3	J	1.4	J	SF-RV-05	3 / 6	2.5 - 2.6	1.3
Methoxychlor						0 / 6	25 - 26	13
Toxaphene						0 / 6	250 - 260	128
Metals - mg/Kg								
Aluminum	5.7	J	12.9	J	SF-RV-01	5 / 6	18.9	8.1
Antimony						0 / 6	0.092 - 0.11	0.049
Arsenic						0 / 6	0.12 - 0.29	0.093
Barium						0 / 6	0.89 - 1.1	0.49
Beryllium						0 / 6	0.0045 - 0.013	0.0054
Cadmium	0.021		0.038	J	SF-RV-01	6 / 6	N/A	0.026
Calcium						0 / 6	10700 - 15400	6325
Chromium	0.21	J	0.32	J	SF-RV-01	6 / 6	N/A	0.26
Cobalt	0.043	J	0.09	J	LF-RV-07	5 / 6	0.048	0.059
Copper	0.81	J	1.3		LF-RV-07	6 / 6	N/A	1.0
Cyanide						0 / 6	0.45 - 0.49	0.23
Iron	29.6	J	55.7	J	SF-RV-01	6 / 6	N/A	38
Lead	0.071	J	0.21	J	SF-RV-01	3 / 6	0.063 - 0.079	0.077
Magnesium						0 / 6	361 - 476	204
Manganese						0 / 6	11.9 - 22.2	8.9
Mercury	0.024	J	0.033	J	SF-RV-04	5 / 6	0.023	0.027
Nickel						0 / 6	0.042 - 0.074	0.025
Potassium	2890	J	3540	J	SF-RV-04	6 / 6	N/A	3157
Selenium	0.6	J	0.88	J	SF-RV-01	6 / 6	N/A	0.74
Silver						0 / 6	0.034 - 0.07	0.021
Sodium						0 / 6	987 - 1170	526
Thallium						0 / 6	0.13 - 0.16	0.069
Vanadium						0 / 5	0.073 - 0.33	0.11
Zinc	21.2		25.2	J	SF-RV-01	6 / 6	N/A	23
PERCENT LIPIDS	1.8		3.1		SF-RV-05	6 / 6	N/A	2.2
% MOISTURE	73.9		76.4		LF-RV-07	6 / 6	N/A	75

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-191
SMALL FISH TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	20	J	30	J	SF-LK-11	4 / 4	N/A	26
4,4'-DDE	42	J	59	J	SF-LK-11	4 / 4	N/A	51
4,4'-DDT	2.9	J	3.8	J	SF-LK-13	3 / 4	9.8	4
Aldrin						0 / 4	2.5 - 5.1	1.6
alpha-BHC						0 / 4	2.5 - 5.1	1.6
alpha-Chlordane	8.9	J	14	J	SF-LK-11	4 / 4	N/A	11
Aroclor-1016						0 / 4	25 - 50	16
Aroclor-1221						0 / 4	49 - 99	31
Aroclor-1232						0 / 4	25 - 50	16
Aroclor-1242						0 / 4	25 - 50	16
Aroclor-1248						0 / 4	25 - 50	16
Aroclor-1254	74	J	110	J	SF-LK-11	4 / 4	N/A	92
Aroclor-1260	56	J	75	J	SF-LK-12	4 / 4	N/A	69
beta-BHC						0 / 4	2.5 - 5.1	1.6
delta-BHC						0 / 4	2.5 - 5.1	1.6
Dieldrin	2.5	J	3.5	J	SF-LK-12	3 / 4	9.8	4
Endosulfan I	1.4	J	1.5	J	SF-LK-12	2 / 4	2.5 - 5.1	1.7
Endosulfan II						0 / 4	4.9 - 9.8	3.1
Endosulfan sulfate						0 / 4	4.9 - 9.8	3.1
Endrin	5	J	7.2	J	SF-LK-11	4 / 4	N/A	6
Endrin aldehyde						0 / 4	4.9 - 9.8	3.1
Endrin ketone						0 / 4	4.9 - 9.8	3.1
gamma-BHC (lindane)						0 / 4	2.5 - 5.1	1.6
gamma-Chlordane	2.1	J	3.5	J	SF-LK-11	4 / 4	N/A	3
Heptachlor						0 / 4	2.5 - 5.1	1.6
Heptachlor epoxide	1.6	J	1.6	J	SF-LK-12	1 / 4	2.5 - 5.1	1.7
Methoxychlor						0 / 4	25 - 51	16
Toxaphene						0 / 4	250 - 510	158
Metals - mg/Kg								
Aluminum	5.9	J	6	J	SF-LK-10	2 / 4	5.5 - 5.8	4.4
Antimony						0 / 4	0.1 - 0.11	0.051
Arsenic						0 / 4	0.14 - 0.23	0.098
Barium						0 / 4	1.6 - 2	0.90
Beryllium						0 / 4	0.012 - 0.013	0.0063
Cadmium	0.032	J	0.048	J	SF-LK-13	4 / 4	N/A	0.040
Calcium	13700		13700		SF-LK-10	1 / 4	14500 - 17300	9525
Chromium	0.27	J	0.32	J	SF-LK-13	4 / 4	N/A	0.28
Cobalt						0 / 4	0.046 - 0.05	0.024
Copper	0.69	J	1.5	J	SF-LK-12	4 / 4	N/A	1.1
Cyanide						0 / 4	0.47 - 0.6	0.26
Iron	41.8		51.7		SF-LK-12	4 / 4	N/A	48
Lead	0.33	J	0.39	J	SF-LK-10	4 / 4	N/A	0.36
Magnesium						0 / 4	432 - 509	227
Manganese	35.6	J	35.6	J	SF-LK-11	1 / 4	16.9 - 23.8	17
Mercury						0 / 4	0.017 - 0.021	0.010
Nickel						0 / 4	0.046 - 0.05	0.024
Potassium	2800		2980		SF-LK-11	4 / 4	N/A	2878
Selenium	0.62	J	0.75	J	SF-LK-11	4 / 4	N/A	0.70
Silver						0 / 4	0.037 - 0.04	0.019
Sodium						0 / 4	1010 - 1100	529
Thallium						0 / 4	0.14 - 0.15	0.071
Zinc	25.2	J	27.8	J	SF-LK-10	4 / 4	N/A	26
PERCENT LIPIDS	1.8		2.4		SF-LK-11	4 / 4	N/A	2.1
% MOISTURE	74		75.2		SF-LK-13	4 / 4	N/A	75

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-192
SMALL FISH TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.2		45	J	LF-LK-01	29 / 30	9.8	24
4,4'-DDE	9		59	J	SF-LK-11	27 / 30	18 - 32	30
4,4'-DDT	1.9	J	12	J	LF-LK-04	26 / 30	2.9 - 9.9	5.2
Aldrin	0.59	J	3.1		SF-RV-05	9 / 30	1 - 5.1	1.5
alpha-BHC						0 / 30	1 - 5.1	1.3
alpha-Chlordane	3.9		42	J	LF-LK-01	28 / 30	1 - 9.1	18
Aroclor-1016						0 / 30	9.9 - 50	13
Aroclor-1221						0 / 30	20 - 100	25
Aroclor-1232						0 / 30	9.9 - 50	13
Aroclor-1242						0 / 30	9.9 - 50	13
Aroclor-1248	27	J	47		SF-RV-10	6 / 30	9.9 - 50	18
Aroclor-1254	41	J	160	J	LF-LK-01	28 / 30	25 - 50	89
Aroclor-1260	30		110	J	LF-LK-02	30 / 30	N/A	68
beta-BHC	1.4		1.4		SF-RV-10	1 / 30	1 - 5.1	1.4
delta-BHC	1.2	J	1.4	J	SF-LK-02	2 / 30	1 - 5.1	1.3
Dieldrin	2.5	J	39	J	LF-LK-01	28 / 30	2.9 - 9.8	11
Endosulfan I	0.57	J	2.5	J	SF-RV-12	6 / 30	1 - 5.1	1.4
Endosulfan II	2.4	J	4.8	J	SF-RV-12	3 / 30	2 - 9.9	2.8
Endosulfan sulfate	1.2	J	2.6	J	LF-LK-04	4 / 30	2 - 9.9	2.7
Endrin	1.6	J	8.2	J	SF-LK-03	14 / 30	2 - 9.9	3.8
Endrin aldehyde	1.5	J	4.9	J	SF-LK-09	7 / 30	2 - 9.9	2.8
Endrin ketone	1.9	J	2.7	J	LF-LK-04	3 / 30	2 - 9.9	2.7
gamma-BHC (lindane)						0 / 30	1 - 5.1	1.3
gamma-Chlordane	2		20	J	LF-LK-01	29 / 30	5.1	8.2
Heptachlor						0 / 30	1 - 5.1	1.3
Heptachlor epoxide	0.67	J	15	J	LF-LK-01	22 / 30	1 - 5.1	3.4
Methoxychlor						0 / 30	10 - 51	13
Toxaphene						0 / 30	100 - 510	132
Metals - mg/Kg								
Aluminum	2.8	J	66.7	J	SF-LK-02	19 / 33	2.3 - 21.4	8.4
Antimony	0.14		0.14		SF-LK-05	1 / 29	0.085 - 0.15	0.056
Arsenic	0.59		1.4		SF-RV-09	3 / 33	0.095 - 0.89	0.22
Barium	0.63		1.8		LF-LK-05	5 / 33	0.47 - 2.5	0.66
Beryllium						0 / 33	0.0045 - 0.014	0.0054
Cadmium	0.013	J	0.084	J	LF-LK-04	31 / 32	0.015	0.028
Calcium	13700		27800	J	SF-LK-08	3 / 33	7170 - 18400	8037
Chromium	0.21	J	0.66	J	SF-RV-07	32 / 33	0.42	0.34
Cobalt	0.043	J	0.12	J	SF-RV-07	17 / 33	0.043 - 0.05	0.047
Copper	0.52	J	1.7	J	SF-RV-09	29 / 33	0.44 - 2.2	0.89
Cyanide						0 / 33	0.37 - 0.66	0.24
Iron	19.1		236	J	SF-RV-09	30 / 33	23 - 71.3	52
Lead	0.071	J	0.68	J	SF-LK-01	10 / 33	0.054 - 0.39	0.13
Magnesium						0 / 33	341 - 653	218
Manganese	35.6	J	35.6	J	SF-LK-11	1 / 33	4.3 - 23.8	6.8
Mercury	0.015		0.054	J	SF-RV-08	17 / 33	0.013 - 0.051	0.021
Nickel						0 / 33	0.036 - 0.074	0.024
Potassium	2800		3600	J	LF-RV-17	33 / 33	N/A	3118
Selenium	0.46	J	0.96	J	SF-RV-10	33 / 33	N/A	0.71
Silver						0 / 33	0.029 - 0.07	0.019
Sodium						0 / 33	610 - 1330	518
Thallium						0 / 33	0.11 - 0.16	0.070
Vanadium						0 / 19	0.056 - 0.33	0.091
Zinc	21		42		SF-RV-08	33 / 33	N/A	26
PERCENT LIPIDS	0.9		5.1		LF-LK-01	33 / 33	N/A	2.4
% MOISTURE	66.6		83.5		SF-LK-04	33 / 33	N/A	75

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-193
SMALL FISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-01	LF-LK-02	LF-LK-03	LF-LK-04	LF-LK-05	LF-LK-36-F	LF-LK-36-O	LF-RV-07
Reach	3	3	3	3	3	4	4	5
Species	white sucker	yellow perch	yellow perch	yellow perch	yellow perch	largemouth bass	largemouth bass	white sucker
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	45 J	9.8 UJ	33 J	37 J	37 J	2.3 J	39	25
4,4'-DDE	42 J	43 J	24 J	41 J	32 J	13	200	28
4,4'-DDT	8.9 J	11 J	5.7 J	12 J	7.7 J	1.7 J	21	7.6 J
Aldrin	5.1 UJ	5 UJ	5.1 UJ	0.73 J	0.68 J	1.5 U	2.8	2.5 U
alpha-Chlordane	42 J	39 J	28 J	32 J	32 J	1.3 J	15	24
Aroclor-1248	50 UJ	49 UJ	50 UJ	34 J	27 J	15 U	25 U	25 U
Aroclor-1254	160 J	150 J	92 J	130 J	110 J	35	370	25 U
Aroclor-1260	100 J	110 J	70 J	93 J	88 J	38	490	52
beta-BHC	5.1 UJ	5 UJ	5.1 UJ	1.7 UJ	1.5 UJ	1.5 U	2.5 U	2.5 U
delta-BHC	5.1 UJ	5 UJ	5.1 UJ	1 UJ	1 UJ	1.5 U	2.5 U	2.5 U
Dieldrin	39 J	34 J	26 J	27 J	25 J	3 U	8.5	7.2 J
Endosulfan I	5.1 UJ	5 UJ	5.1 UJ	1 UJ	1 UJ	1.5 U	2.5 U	2.5 U
Endosulfan II	9.8 UJ	9.8 UJ	9.8 UJ	3.9 UJ	5 UJ	3 U	13 U	4.9 U
Endosulfan sulfate	9.8 UJ	9.8 UJ	9.8 UJ	2.6 J	2.3 J	3 U	4.9 U	4.9 U
Endrin	9.8 UJ	9.8 UJ	9.8 UJ	2.1 J	2 UJ	2.8 J	32	4.9 U
Endrin aldehyde	9.8 UJ	9.8 UJ	9.8 UJ	2 UJ	2 UJ	1 J	13	4.9 U
Endrin ketone	9.8 UJ	9.8 UJ	9.8 UJ	2.7 J	2.3 J	3 U	4.9 U	4.9 U
gamma-Chlordane	20 J	18 J	13 J	14 J	13 J	1.5 U	6.6	14
Heptachlor epoxide	15 J	14 J	9.8 J	10 J	9.3 J	1.5 U	1.4 J	1.3 J
Metals (mg/Kg)								
Aluminum	4.2 UJ	2.3 UJ	4.4 UJ	3.6 UJ	5.8 J	1.9 UJ	3.1 UJ	18.9 UJ
Antimony	0.098 U	R	0.11 U	R	R	0.1 U	0.083 U	0.11 U
Arsenic	0.19 U	0.1 UJ	0.24 U	0.095 UJ	0.16 UJ	0.095 U	0.079 U	0.21 UJ
Barium	1.5	0.76	0.63	1.6	1.8	0.15 U	0.7 UJ	0.92 UJ
Cadmium	0.017 J	0.02 J	0.015	0.084 J	0.027 J	0.015	0.018 J	0.025
Calcium	14600 U	11200 U	9200 U	21900	18100 U	104 UJ	24600 J	10700 UJ
Chromium	0.36 J	0.25 J	0.26 J	0.46 J	0.41 J	0.058 J	0.31 J	0.25 J
Cobalt	0.045 UJ	0.058 J	0.06 J	0.044 J	0.059 J	0.045 J	0.038 UJ	0.09 J
Copper	1 J	0.79 J	0.6	0.89 J	0.55 J	0.17	1.2 J	1.3
Cyanide	0.5 U	0.46 U	0.37 U	0.52 U	0.38 U	0.43 UJ	0.47 J	0.49 U
Iron	36.2	19.1	28.1	23.9	28.5	4.1 UJ	33.5 J	39.1 J
Lead	0.067 UJ	0.062 UJ	0.076 J	0.054 UJ	0.074 UJ	0.068 UJ	0.056 UJ	0.079 U
Manganese	9.6 UJ	4.4 UJ	4.3 U	8.9 UJ	8.4 UJ	0.077 U	2.1 UJ	22.2 U
Mercury	0.016 UJ	0.034 UJ	0.027 UJ	0.038 UJ	0.02 UJ	0.26 J	0.13 J	0.023 UJ
Potassium	3250	3350	3350	3310	3030	3570 J	2640 J	2980
Selenium	0.87 J	0.82 J	0.7 J	0.66 J	0.78 J	0.74 J	0.78 J	0.69 J
Zinc	21.1 J	22.1 J	21	24.8 J	25.4 J	7.4	23.5 J	24.2
PERCENT LIPIDS	5.1	4.9	3.9	4.3	3.6	0.3	2	2.3
% MOISTURE	68.6	66.6	66.9	69.8	69.6	78.7	65.6	76.4

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TABLE 2-193
SMALL FISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-RV-17	LF-RV-18	SF-LK-01	SF-LK-02	SF-LK-03	SF-LK-04	SF-LK-05	SF-LK-06
Reach	2	1	3	3	3	3	3	4
Species	white sucker	white sucker	pumpkin seed	pumpkin seed	pumpkin seed	white sucker	white sucker	white sucker
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	27 J	19	27	32 J	27 J	16 J	16 J	26
4,4'-DDE	21 J	16	31	31 J	30 J	19 J	18 J	25 U
4,4'-DDT	9.9 U	2.5 J	8.3 J	7.1 J	4.4 J	2.4 J	2 J	5 U
Aldrin	5.1 U	2 U	5.1 U	2.3 J	1.3 J	1 U	1.1	2.6 U
alpha-Chlordane	25 J	16	12 J	17 J	18 J	8.9 J	12 J	23
Aroclor-1248	50 U	27 J	50 U	25 U	25 U	9.9 U	10 U	25 U
Aroclor-1254	93 J	52	50 U	130 J	130 J	57 J	50 J	97
Aroclor-1260	55	45	84	98 J	87 J	60 J	53 J	30
beta-BHC	5.1 U	2 U	5.1 U	2.6 U	2.6 U	1 U	1 U	2.6 U
delta-BHC	5.1 U	2 U	5.1 U	1.4 J	1.2 J	1 U	1 U	2.6 U
Dieldrin	12 J	7.2	11 J	17 J	13 J	4.8 J	4.2 J	7.5
Endosulfan I	5.1 U	2 U	5.1 U	2.6 U	2.6 U	1 U	0.57 J	2.6 U
Endosulfan II	9.9 U	4 U	9.8 U	5 U	5 U	2 U	2 U	5 U
Endosulfan sulfate	9.9 U	4 U	9.8 U	5 U	5 U	2 U	2 U	5 U
Endrin	9.9 U	4 U	9.8 UJ	6.9 J	8.2 J	3.7 J	3.2 J	5 U
Endrin aldehyde	9.9 U	4 U	9.8 U	3 J	3 J	2.2 J	1.9 J	5 U
Endrin ketone	9.9 U	4 U	9.8 U	5 U	5 U	2 U	2 U	5 U
gamma-Chlordane	15 J	10	5.1 U	4.1 J	4.6 J	7.8 J	8.1 J	15
Heptachlor epoxide	4.1 J	2.5 J	5.1 U	2.2 J	2.1 J	0.78 J	0.67 J	1.5 J
Metals (mg/Kg)								
Aluminum	3.8 UJ	6 UJ	10.9 J	66.7 J	5.5 J	11.4 J	20.5 J	5.9 J
Antimony	0.11 U	0.15 UJ	0.11 U	0.11 U	0.1 U	0.11 U	0.14	0.11 U
Arsenic	0.2 UJ	0.23 U	0.43 UJ	0.34 UJ	0.5 UJ	0.5 UJ	0.53 UJ	0.18 UJ
Barium	0.81 U	0.59 U	0.58 U	0.47 U	0.64 U	0.77 U	0.93 U	0.74 UJ
Cadmium	0.016 J	0.02	R	0.043 J	0.02 J	0.019	0.031	0.015 U
Calcium	15800 UJ	7170 UJ	16300 UJ	13400 UJ	15900 UJ	10400 UJ	11300 UJ	12100 UJ
Chromium	0.33 J	0.22 J	0.4 J	0.27 J	0.28 J	0.33 J	0.55 J	0.28 J
Cobalt	0.05 U	0.05 UJ	0.088 J	0.049 UJ	0.047 UJ	0.049 UJ	0.047 UJ	0.05 UJ
Copper	0.44 UJ	0.54	0.92 J	0.83 J	0.59 J	0.71	0.94 U	0.69
Cyanide	0.54 U	0.46 U	0.5 U	0.51 UJ	0.56 UJ	0.49 UJ	0.57 UJ	0.47 U
Iron	23 UJ	48.3 J	49.3 J	34.5 J	37.6 J	44.6 J	76.3 J	30.6 J
Lead	0.074 U	0.13 UJ	0.68 J	0.074 UJ	0.07 UJ	0.15 UJ	0.39 UJ	0.075 U
Manganese	6.6 UJ	6.4 U	5.2 UJ	4.6 UJ	5.5 UJ	7.7 U	7.7 U	7.5 U
Mercury	0.02 UJ	0.016	0.051 UJ	0.041 J	0.032 J	0.017 UJ	0.018 J	0.02 UJ
Potassium	3600 J	3270 J	2830 J	3060 J	2940 J	2880 J	3010 J	3350 J
Selenium	0.46 J	0.86 J	0.87 J	0.66 J	0.79 J	0.7 J	0.65 J	0.61 J
Zinc	25.9 J	22.6	29.6 J	29.2 J	34.7 J	24.1	29	25.7 J
PERCENT LIPIDS	2.6	1.8	1.6	2.6	2.4	1.3	1.1	2.6
% MOISTURE	76.9	76.7	76.4	74.8	80.6	83.5	73.3	75

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TABLE 2-193
SMALL FISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SF-LK-07	SF-LK-08	SF-LK-09	SF-LK-10	SF-LK-11	SF-LK-12	SF-LK-13	SF-RV-01
Reach	4	4	4	6	6	6	6	5
Species	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed	pumpkin seed
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	32	17	34	20 J	30 J	29 J	23 J	21
4,4'-DDE	32 U	18 U	37	42 J	59 J	53 J	49 J	31
4,4'-DDT	5.2	2.3	5	2.9 J	9.8 U	3.7 J	3.8 J	4.3 J
Aldrin	2.5 U	0.61 J	1.4 J	2.5 U	5.1 U	2.5 U	2.5 U	2.6 U
alpha-Chlordane	18	9.1 U	17	8.9 J	14 J	12 J	10 J	12
Aroclor-1248	25 U	9.9 U	25 U	25 U	50 U	25 U	25 U	25 U
Aroclor-1254	100	62	130	74 J	110 J	95 J	87 J	84
Aroclor-1260	46	34	66	56 J	72 J	75 J	74 J	52
beta-BHC	2.5 U	1 U	2.6 U	2.5 U	5.1 U	2.5 U	2.5 U	2.6 U
delta-BHC	2.5 U	1 U	2.6 U	2.5 U	5.1 U	2.5 U	2.5 U	2.6 U
Dieldrin	4.3 J	6.7	10	2.5 J	9.8 U	3.5 J	3.3 J	6.5
Endosulfan I	2.5 U	1 U	2.6 U	2.5 U	5.1 U	1.5 J	1.4 J	2.6 U
Endosulfan II	2.4 J	2 U	5 U	4.9 U	9.8 U	4.9 U	4.9 U	5 U
Endosulfan sulfate	4.9 U	1.5 J	5 U	4.9 U	9.8 U	4.9 U	4.9 U	5 U
Endrin	4.9 U	3.8 U	7.8 U	5 J	7.2 J	6.3 J	5.9 J	4.5 J
Endrin aldehyde	4.9 U	2.2	4.9 J	4.9 U	9.8 U	4.9 U	4.9 U	5 U
Endrin ketone	4.9 U	2 U	5 U	4.9 U	9.8 U	4.9 U	4.9 U	5 U
gamma-Chlordane	3.9	2	3.8	2.1 J	3.5 J	2.9 J	2.3 J	2.8
Heptachlor epoxide	1.8 J	0.98 J	1.7 J	2.5 U	5.1 U	1.6 J	2.5 U	2.6 U
Metals (mg/Kg)								
Aluminum	2.8 J	5.4 J	5.7 J	6 J	5.8 UJ	5.9 J	5.5 UJ	12.9 J
Antimony	0.094 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.094 U
Arsenic	0.18 UJ	0.16 UJ	0.11 UJ	0.21 U	0.23 U	0.14 UJ	0.2 UJ	0.29 U
Barium	0.83 UJ	1.5 UJ	0.82 UJ	1.6 U	1.8 U	1.8 U	2 U	1.1 UJ
Cadmium	0.013 J	0.017 J	0.015 J	0.032 J	0.036 J	0.044 J	0.048 J	0.038 J
Calcium	15000 UJ	27800 J	17100 UJ	13700	14500 U	17000 U	17300 U	13600 UJ
Chromium	0.24 J	0.44 J	0.32 J	0.27 J	0.27 J	0.27 J	0.32 J	0.32 J
Cobalt	0.043 UJ	0.049 UJ	0.047 UJ	0.046 UJ	0.046 UJ	0.047 UJ	0.05 UJ	0.069 J
Copper	0.52 J	0.94 J	0.82 J	1.3 J	0.69 J	1.5 J	0.99 J	1 J
Cyanide	0.45 U	0.48 U	0.46 U	0.6 U	0.49 U	0.48 U	0.47 U	0.46 UJ
Iron	23.2 J	32.9 J	37.1 J	48.4	51.2	51.7	41.8	55.7 J
Lead	0.064 UJ	0.074 UJ	0.071 UJ	0.39 J	0.33 J	0.37 J	0.34 J	0.21 J
Manganese	6 UJ	11.6 UJ	6.8 UJ	16.9 UJ	35.6 J	23.8 UJ	20.1 UJ	15.6 UJ
Mercury	0.036 J	0.037 J	0.022 J	0.021 U	0.017 U	0.018 U	0.02 U	0.028 J
Potassium	2970 J	3080 J	3060 J	2820	2980	2800	2910	2900 J
Selenium	0.62 J	0.56 J	0.54 J	0.69 J	0.75 J	0.62 J	0.72 J	0.88 J
Zinc	23.3 J	29.9 J	24.8 J	27.8 J	25.2 J	25.2 J	25.4 J	25.2 J
PERCENT LIPIDS	2.9	1.5	2.5	1.8	2.4	2.1	2.2	2
% MOISTURE	74	74.4	74.9	74	75.1	75.1	75.2	74.5

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TABLE 2-193
SMALL FISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SF-RV-02	SF-RV-03	SF-RV-04	SF-RV-05	SF-RV-06	SF-RV-07	SF-RV-08	SF-RV-09
Reach	5	5	5	5	2	2	2	1
Species	pumpkin seed	pumpkin seed	pumpkin seed	white sucker	white sucker	white sucker	redfin pickerel	brown bullhead
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	18	18	29	29	14 J	NA	NA	NA
4,4'-DDE	24	26	44	41	15 J	NA	NA	NA
4,4'-DDT	3.6 J	4.6 J	9.3	8.3	1.9 J	NA	NA	NA
Aldrin	2.5 U	2.6 U	2.5 U	3.1	1 U	NA	NA	NA
alpha-Chlordane	11	11	27	29	10 J	NA	NA	NA
Aroclor-1248	25 U	25 U	25 U	25 U	10 U	NA	NA	NA
Aroclor-1254	75	77	110	110	41 J	NA	NA	NA
Aroclor-1260	45	43	65	61	46 J	NA	NA	NA
beta-BHC	2.5 U	2.6 U	2.5 U	2.6 U	1 U	NA	NA	NA
delta-BHC	2.5 U	2.6 U	2.5 U	2.6 U	1 U	NA	NA	NA
Dieldrin	6.3	6.2	6.7	8	5.3 J	NA	NA	NA
Endosulfan I	2.5 U	2.6 U	2.5 U	2.6 U	1 U	NA	NA	NA
Endosulfan II	4.9 U	5 U	4.9 U	5 U	2 U	NA	NA	NA
Endosulfan sulfate	4.9 U	5 U	4.9 U	5 U	2 U	NA	NA	NA
Endrin	3.7 J	4.1 J	4.9 U	5 U	2.8 J	NA	NA	NA
Endrin aldehyde	4.9 U	5 U	4.9 U	5 U	1.5 J	NA	NA	NA
Endrin ketone	4.9 U	5 U	4.9 U	5 U	2 U	NA	NA	NA
gamma-Chlordane	2.8	2.6	15	17	6.1 J	NA	NA	NA
Heptachlor epoxide	2.5 U	2.6 U	1.3 J	1.4 J	1 U	NA	NA	NA
Metals (mg/Kg)								
Aluminum	6.8 J	5.7 J	7.9 J	6.1 J	19.7 J	15.3 UJ	7.9 UJ	21.4 UJ
Antimony	0.095 U	0.1 U	0.092 U	0.1 U	0.1 U	0.085 U	0.11 U	0.13 UJ
Arsenic	0.22 U	0.16 UJ	0.12 UJ	0.12 UJ	0.32 U	0.52 U	0.7 U	1.4
Barium	1 UJ	1 UJ	0.89 UJ	0.98 UJ	1.4 U	2.5 U	1.2 U	1.1 U
Cadmium	0.025 J	0.021	0.027 J	0.022	0.032	0.017	0.065	0.037 J
Calcium	13400 UJ	11600 UJ	15400 UJ	11200 UJ	10500 U	11500 UJ	8290 UJ	11400 UJ
Chromium	0.27 J	0.21 J	0.29 J	0.21 J	0.5 J	0.66 J	0.37 J	0.63 J
Cobalt	0.058 J	0.048 UJ	0.043 J	0.067 J	0.078 J	0.12 J	0.05 J	0.12 J
Copper	1.1 J	1	0.81 J	0.93	1.1	1.2 U	2.2 U	1.7 J
Cyanide	0.45 UJ	0.49 UJ	0.45 U	0.47 U	0.53 U	0.66 U	0.53 U	0.5 U
Iron	37.3 J	32.1 J	33.3 J	29.6 J	60.2	71.3 UJ	43.6 UJ	236 J
Lead	0.071 J	0.077 J	0.063 UJ	0.071 U	0.38 J	0.21 UJ	0.17 UJ	0.35 UJ
Manganese	17.3 UJ	11.9 U	18.2 UJ	21 U	11.8 U	18.8 U	7.9 U	23.5 UJ
Mercury	0.031 J	0.024 J	0.033 J	0.032 J	0.022 U	0.028 J	0.054 J	0.032
Potassium	3230 J	2890 J	3540 J	3400 J	3040	3000 J	3290 J	2990 J
Selenium	0.87 J	0.8 J	0.61 J	0.6 J	0.74 J	0.67 J	0.53 J	0.68 J
Zinc	23.4 J	21.2	22.1 J	22.4 J	28.5	31.8	42	22.1 J
PERCENT LIPIDS	1.8	1.9	2.2	3.1	1.4	0.9	2.4	3.4
% MOISTURE	76.1	74.6	73.9	75.6	78.6	81.7	77.6	79.5

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TABLE 2-193
SMALL FISH TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SF-RV-10	SF-RV-12	SF-RV-13
Reach	1	1	1
Species	pumpkin seed	white sucker	white sucker
SVOCs (ug/Kg)			
No Detections			
PCB/Pesticides (ug/Kg)			
4,4'-DDD	9	26	4.2
4,4'-DDE	16 J	29	9
4,4'-DDT	2.7 J	3.6 J	2.9 U
Aldrin	0.59 J	2.3 U	1.5 U
alpha-Chlordane	1 U	22	3.9
Aroclor-1248	47	44 J	31 J
Aroclor-1254	84	110	46 J
Aroclor-1260	95	100	70
beta-BHC	1.4	2.3 U	1.5 U
delta-BHC	1 U	2.3 U	1.5 U
Dieldrin	4.9	6.4	2.9 U
Endosulfan I	1.7 J	2.5 J	1.3 J
Endosulfan II	4 J	4.8 J	2.9 U
Endosulfan sulfate	1.2 J	4.4 U	2.9 U
Endrin	1.6 J	4.4 U	2.9 U
Endrin aldehyde	2 U	4.4 U	2.9 U
Endrin ketone	1.9 J	4.4 U	2.9 U
gamma-Chlordane	2.8	15	2.8
Heptachlor epoxide	4.6 J	3.1 J	1.3 J
Metals (mg/Kg)			
Aluminum	10.3 UJ	8.1 UJ	8.3 J
Antimony	0.11 U	0.11 U	R
Arsenic	0.59	0.89 U	1 J
Barium	0.77 U	1.1 U	1.3 U
Cadmium	0.032 J	0.016 J	0.017 J
Calcium	18400 UJ	18400 UJ	12900 UJ
Chromium	0.47 J	0.44 J	0.42 UJ
Cobalt	0.058 J	0.058 J	0.056 J
Copper	1.3 J	0.78 J	1.1 J
Cyanide	0.45 U	0.38 U	0.45 U
Iron	82.7 J	152 J	152 J
Lead	0.13 UJ	0.1 UJ	0.078 UJ
Manganese	21.2 UJ	10.1 UJ	9.3 UJ
Mercury	0.031	0.015	0.013 UJ
Potassium	3160 J	3410 J	3230 J
Selenium	0.96 J	0.71 J	0.89 J
Zinc	35.3 J	29.2 J	29.9 J
PERCENT LIPIDS	1.9	2	1.4
% MOISTURE	74.5	77.7	79.6

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TABLE 2-194
LARGE FISH FILLET TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 12	820 - 3300	630
1,2-Dichlorobenzene						0 / 12	820 - 3300	630
1,3-Dichlorobenzene						0 / 12	820 - 3300	630
1,4-Dichlorobenzene						0 / 12	820 - 3300	630
2,2'-oxybis(1-Chloropropane)						0 / 12	820 - 3300	630
2,4,5-Trichlorophenol						0 / 12	2000 - 8000	1538
2,4,6-Trichlorophenol						0 / 12	820 - 3300	630
2,4-Dichlorophenol						0 / 12	820 - 3300	630
2,4-Dimethylphenol						0 / 12	820 - 3300	630
2,4-Dinitrophenol						0 / 10	2000 - 2700	1310
2,4-Dinitrotoluene						0 / 12	820 - 3300	630
2,6-Dinitrotoluene						0 / 12	820 - 3300	630
2-Chloronaphthalene						0 / 12	820 - 3300	630
2-Chlorophenol						0 / 12	820 - 3300	630
2-Methylnaphthalene						0 / 12	820 - 3300	630
2-Methylphenol						0 / 12	820 - 3300	630
2-Nitroaniline						0 / 12	2000 - 8000	1538
2-Nitrophenol						0 / 12	820 - 3300	630
3,3'-Dichlorobenzidine						0 / 12	820 - 3300	630
3-Nitroaniline						0 / 12	2000 - 8000	1538
4,6-Dinitro-2-methylphenol						0 / 12	2000 - 8000	1538
4-Bromophenyl-phenylether						0 / 12	820 - 3300	630
4-Chloro-3-methylphenol						0 / 12	820 - 3300	630
4-Chloroaniline						0 / 12	820 - 3300	630
4-Chlorophenyl-phenylether						0 / 12	820 - 3300	630
4-Methylphenol						0 / 12	820 - 3300	630
4-Nitroaniline						0 / 12	2000 - 8000	1538
4-Nitrophenol						0 / 12	2000 - 8000	1538
Acenaphthene						0 / 12	820 - 3300	630
Acenaphthylene						0 / 12	820 - 3300	630
Anthracene						0 / 12	820 - 3300	630
Benzo(a)anthracene						0 / 12	820 - 3300	630
Benzo(a)pyrene						0 / 12	820 - 3300	630
Benzo(b)fluoranthene						0 / 12	820 - 3300	630
Benzo(g,h,i)perylene	400	J	400	J	LF-LB-08-F	1 / 12	820 - 3300	618
Benzo(k)fluoranthene						0 / 12	820 - 3300	630
Bis(2-Chloroethoxy)methane						0 / 12	820 - 3300	630
Bis(2-Chloroethyl)ether						0 / 12	820 - 3300	630
bis(2-Ethylhexyl)phthalate						0 / 12	820 - 3300	630
Butylbenzylphthalate						0 / 12	820 - 3300	630
Carbazole						0 / 12	820 - 3300	630
Chrysene						0 / 12	820 - 3300	630
Dibenz(a,h)anthracene						0 / 12	820 - 3300	630
Dibenzofuran						0 / 12	820 - 3300	630
Diethylphthalate						0 / 12	820 - 3300	630
Dimethylphthalate						0 / 12	820 - 3300	630
Di-n-Butylphthalate						0 / 12	820 - 3300	630
Di-n-octylphthalate						0 / 12	820 - 3300	630
Fluoranthene						0 / 12	820 - 3300	630
Fluorene						0 / 12	820 - 3300	630
Hexachlorobenzene						0 / 12	820 - 3300	630
Hexachlorobutadiene						0 / 12	820 - 3300	630
Hexachlorocyclopentadiene						0 / 12	820 - 3300	630
Hexachloroethane						0 / 12	820 - 3300	630
Indeno(1,2,3-cd)pyrene						0 / 12	820 - 3300	630
Isophorone						0 / 12	820 - 3300	630
Naphthalene						0 / 12	820 - 3300	630
Nitrobenzene						0 / 12	820 - 3300	630
N-Nitroso-di-n-propylamine						0 / 12	820 - 3300	630
N-Nitrosodiphenylamine						0 / 12	820 - 3300	630
Pentachlorophenol						0 / 12	2000 - 8000	1538
Phenanthrene						0 / 12	820 - 3300	630
Phenol						0 / 12	820 - 3300	630
Pyrene						0 / 12	820 - 3300	630

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TABLE 2-194
LARGE FISH FILLET TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	6.4	J	6.4	J	LF-LB-15-F	1 / 13	0.98 - 4.9	1.2
4,4'-DDE	2.8		32	J	LF-LB-15-F	12 / 12	N/A	9.1
4,4'-DDT						0 / 13	0.98 - 5.2	0.88
Aldrin						0 / 13	0.5 - 2.7	0.46
alpha-BHC						0 / 13	0.5 - 2.7	0.46
alpha-Chlordane	0.29	J	0.33	J	LF-LB-04-F	3 / 13	0.51 - 2.7	0.47
Aroclor-1016						0 / 13	5 - 26	4.5
Aroclor-1221						0 / 13	9.9 - 53	8.9
Aroclor-1232						0 / 13	5 - 26	4.5
Aroclor-1242						0 / 13	5 - 26	4.5
Aroclor-1248						0 / 13	5 - 26	4.5
Aroclor-1254						0 / 13	5 - 26	4.5
Aroclor-1260	5.1		130	J	LF-LB-15-F	13 / 13	N/A	22
beta-BHC						0 / 13	0.5 - 2.7	0.46
delta-BHC						0 / 13	0.5 - 2.7	0.46
Dieldrin						0 / 13	0.98 - 5.2	0.88
Endosulfan I						0 / 13	0.5 - 2.7	0.46
Endosulfan II						0 / 13	0.98 - 5.2	0.88
Endosulfan sulfate						0 / 13	0.98 - 5.2	0.88
Endrin						0 / 13	0.98 - 5.2	0.88
Endrin aldehyde						0 / 13	0.98 - 5.2	0.88
Endrin ketone						0 / 13	0.98 - 5.2	0.88
gamma-BHC (lindane)						0 / 13	0.5 - 2.7	0.46
gamma-Chlordane						0 / 13	0.5 - 2.7	0.46
Heptachlor	0.39	J	0.39	J	LF-LB-04-F	1 / 13	0.5 - 2.7	0.47
Heptachlor epoxide	0.34	J	0.34	J	LF-LB-05-F	1 / 13	0.51 - 2.7	0.46
Methoxychlor						0 / 13	5 - 27	4.6
Toxaphene						0 / 13	50 - 270	46
Metals - mg/Kg								
Aluminum	0.13	J	0.48	J	LF-LB-03-F	2 / 29	0.48 - 10	3.0
Antimony						0 / 29	0.0014 - 0.5	0.15
Arsenic	0.0219	J	0.0806	J	FI-MC-PP-LMB17-F	16 / 29	0.082 - 0.1	0.044
Barium	0.06	J	0.06	J	FI-MC-PP-WS3-F	1 / 29	0.13 - 10	2.6
Beryllium						0 / 29	0.0038 - 1	0.26
Cadmium						0 / 29	0.0014 - 0.5	0.13
Calcium						0 / 13	83.5 - 1000	154
Chromium	0.057	J	0.81	J	FI-MC-PP-WS3-F	11 / 29	0.072 - 1	0.32
Cobalt	0.0084	J	0.049	J	LF-LB-03-F	6 / 29	0.039 - 10	2.6
Copper	0.12		0.27	J	FI-MC-PP-WS3-F	6 / 29	0.19 - 10	2.7
Cyanide						0 / 13	0.36 - 0.61	0.26
Iron	5.7	J	24.9	J	LF-LB-15-F	5 / 29	3.5 - 10	5.4
Lead	0.059		0.061		LF-LB-14-F	3 / 29	0.018 - 1	0.28
Magnesium						0 / 13	239 - 334	148
Manganese	0.37	J	0.37	J	FI-MC-PP-WS3-F	1 / 29	0.13 - 10	2.7
Mercury	0.1		1		LF-LB-09-F	25 / 29	0.025 - 0.15	0.31
Nickel	0.016	J	0.016	J	FI-MC-PP-WS3-F	1 / 29	0.039 - 10	2.6
Potassium	3560	J	4650	J	LF-LB-14-F	13 / 13	N/A	4042
Selenium	0.52	J	0.8	J	LF-LB-06-F	16 / 29	0.5	0.45
Silver						0 / 29	0.00041 - 0.5	0.14
Sodium						0 / 13	318 - 786	222
Thallium						0 / 29	0.0089 - 2	0.55
Vanadium	0.04	J	0.04	J	FI-MC-PP-WS3-F	1 / 29	0.045 - 0.5	0.14
Zinc	3.3		8.3		FI-MC-PP-WS13-F	25 / 29	4.3 - 5.2	5.1
PERCENT LIPIDS	0.2		1		LF-LB-15-F	13 / 13	N/A	0.49
% MOISTURE	77.7		82.7		LF-LB-09-F	13 / 13	N/A	80

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-195
LARGE FISH FILLET TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	FI-MC-PP-BB1-F	FI-MC-PP-LMB15-F	FI-MC-PP-LMB17-F	FI-MC-PP-LMB2-F	FI-MC-PP-LMB5-F	FI-MC-PP-LMB6-F
Reach	7	7	7	7	7	7
Species	brown bullhead	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)						
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
Metals (mg/Kg)						
Aluminum	10 U	10 U	10 U	10 U	10 U	10 U
Arsenic	0.0294 J	0.0406 J	0.0806 J	0.0724 J	0.0456 J	0.0379 J
Barium	10 U	10 U	10 U	10 U	10 U	10 U
Chromium	1 U	1 U	1 U	1 U	1 U	1 U
Cobalt	10 U	10 U	10 U	10 U	10 U	10 U
Copper	10 U	10 U	10 U	10 U	10 U	10 U
Iron	10 U	10 U	10 U	10 U	10 U	10 U
Lead	1 U	1 U	1 U	1 U	1 U	1 U
Manganese	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	0.1 U	0.42	0.38	0.29	0.43	0.54
Nickel	10 U	10 U	10 U	10 U	10 U	10 U
Potassium	NA	NA	NA	NA	NA	NA
Selenium	0.5 U	0.5 U	0.79	0.59	0.5 U	0.5 U
Vanadium	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	3.3	4.6	4.4	5.8	4.6	4.4
PERCENT LIPIDS	NA	NA	NA	NA	NA	NA
% MOISTURE	NA	NA	NA	NA	NA	NA

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TABLE 2-195
LARGE FISH FILLET TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	FI-MC-PP-WS11-F	FI-MC-PP-WS13-F	FI-MC-PP-WS1-F	FI-MC-PP-WS3-F	FI-MC-PP-WS8-F	FI-MC-SP-LMB12-F
Reach	7	7	7	7	7	7
Species	white sucker	white sucker	white sucker	white sucker	white sucker	largemouth bass
SVOCs (ug/Kg)						
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA
PCB/Pesticides (ug/Kg)						
4,4'-DDD	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA
alpha-Chlordane	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA
Heptachlor	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NA	NA	NA	NA	NA	NA
Metals (mg/Kg)						
Aluminum	10 U	10 U	10 U	0.13 J	10 U	10 U
Arsenic	0.0454 J	0.0553 J	0.0262 J	0.041 B	0.0239 J	0.0337 J
Barium	10 U	10 U	10 U	0.06 B	10 U	10 U
Chromium	1 U	1 U	1 U	0.81 J	1 U	1 U
Cobalt	10 U	10 U	10 U	0.0084 J	10 U	10 U
Copper	10 U	10 U	10 U	0.27 B	10 U	10 U
Iron	10 U	10 U	10 U	5.7 J	10 U	10 U
Lead	1 U	1 U	1 U	0.018 U	1 U	1 U
Manganese	10 U	10 U	10 U	0.37 J	10 U	10 U
Mercury	0.1	0.23	0.21	0.23	0.15	0.16
Nickel	10 U	10 U	10 U	0.016 B	10 U	10 U
Potassium	NA	NA	NA	NA	NA	NA
Selenium	0.5 U	0.5 U	0.5 U	0.54	0.5 U	0.5 U
Vanadium	0.5 U	0.5 U	0.5 U	0.04 B	0.5 U	0.5 U
Zinc	7	8.3	5.5	8.1 BJ	6.7	6.5
PERCENT LIPIDS	NA	NA	NA	NA	NA	NA
% MOISTURE	NA	NA	NA	NA	NA	NA

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TABLE 2-195
LARGE FISH FILLET TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	FI-MC-SP-LMB2-F	FI-MC-SP-LMB4-F	FI-MC-SP-LMB5-F	FI-MC-SP-LMB9-F	LF-LB-01-F	LF-LB-02-F	LF-LB-03-F
Reach	7	7	7	7	7	7	7
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)							
Benzo(g,h,i)perylene	NA	NA	NA	NA	1100 U	1100 U	1100 U
PCB/Pesticides (ug/Kg)							
4,4'-DDD	NA	NA	NA	NA	0.99 U	4.9 U	0.98 U
4,4'-DDE	NA	NA	NA	NA	5.9	19	3
alpha-Chlordane	NA	NA	NA	NA	0.29 J	2.5 U	0.51 U
Aroclor-1260	NA	NA	NA	NA	10	29	5.5
Heptachlor	NA	NA	NA	NA	0.51 U	2.5 U	0.51 U
Heptachlor epoxide	NA	NA	NA	NA	0.51 U	2.5 U	0.51 U
Metals (mg/Kg)							
Aluminum	10 U	10 U	10 U	10 U	2.5 UJ	0.94 UJ	0.48 J
Arsenic	0.0219 J	0.054 J	0.0318 J	0.0234 J	0.097 U	0.093 U	0.1 U
Barium	10 U	10 U	10 U	10 U	0.16 U	0.15 U	0.17 U
Chromium	1 U	1 U	1 U	1 U	0.076 J	0.067 J	0.057 J
Cobalt	10 U	10 U	10 U	10 U	0.046 J	0.044 J	0.049 J
Copper	10 U	10 U	10 U	10 U	0.19 U	0.2 U	0.19 U
Iron	10 U	10 U	10 U	10 U	8 UJ	4 UJ	4.7 UJ
Lead	1 U	1 U	1 U	1 U	0.069 U	0.066 U	0.081 UJ
Manganese	10 U	10 U	10 U	10 U	0.19 U	0.31 U	0.18 U
Mercury	0.13	0.16	0.23	0.14	0.63 J	0.63 J	0.36 J
Nickel	10 U	10 U	10 U	10 U	0.046 U	0.044 U	0.049 U
Potassium	NA	NA	NA	NA	4000 J	3920 J	4040 J
Selenium	0.5 U	0.5 U	0.5 U	0.5 U	0.61 J	0.64 J	0.66 J
Vanadium	0.5 U	0.5 U	0.5 U	0.5 U	0.058 UJ	0.049 U	0.053 U
Zinc	5.3	5.5	4.8	6.5	4.9 U	5.5	5.2 U
PERCENT LIPIDS	NA	NA	NA	NA	0.8	0.7	0.5
% MOISTURE	NA	NA	NA	NA	79.4	78.4	79.9

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TABLE 2-195
LARGE FISH FILLET TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-04-F	LF-LB-05-F	LF-LB-06-F	LF-LB-07-F	LF-LB-08-F	LF-LB-09-F	LF-LB-10-F	LF-LB-14-F
Reach	7	7	7	7	7	7	7	7
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	brown bullhead
SVOCs (ug/Kg)								
Benzo(g,h,i)perylene	1100 U	1100 U	1100 U	1100 U	400 J	820 U	1100 U	NA
PCB/Pesticides (ug/Kg)								
4,4'-DDD	0.98 U	0.98 U	0.98 U	0.99 U	0.99 U	1.9 U	0.99 U	1.1 U
4,4'-DDE	3.5	6 J	5.1	2.8	R	14	3.7	6.2
alpha-Chlordane	0.33 J	0.33 J	0.51 U	0.51 U	0.51 U	1 U	0.51 U	0.56 U
Aroclor-1260	5.1	9.5	9.4	6.1	8.9	35	6.2	12
Heptachlor	0.39 J	0.5 U	0.51 U	0.51 U	0.51 U	1 U	0.51 U	0.56 U
Heptachlor epoxide	0.51 U	0.34 J	0.51 U	0.51 U	0.51 U	1 U	0.51 U	0.56 U
Metals (mg/Kg)								
Aluminum	0.48 UJ	0.8 UJ	2.1 UJ	2.1 UJ	1.7 UJ	2.3 UJ	1.8 UJ	1.8 UJ
Arsenic	0.1 U	0.095 U	0.1 U	0.1 U	0.098 U	0.087 U	0.095 U	0.085 UJ
Barium	0.16 U	0.15 U	0.17 U	0.16 U	0.16 U	0.14 U	0.15 U	0.21 UJ
Chromium	0.064 J	0.078 J	0.072 J	0.059 J	0.082 J	0.072 J	0.087 J	0.1 UJ
Cobalt	0.048 J	0.045 J	0.05 UJ	0.047 UJ	0.047 UJ	0.042 UJ	0.045 UJ	0.041 UJ
Copper	0.19 U	0.21 U	0.16	0.14	0.14	0.12	0.14	0.26 U
Iron	3.5 UJ	4.3 UJ	4.9 UJ	3.8 UJ	6 J	6.8 UJ	4.4 UJ	10.3 J
Lead	0.072 UJ	0.08 UJ	0.091 UJ	0.071 U	0.07 U	0.076 UJ	0.074 UJ	0.061
Manganese	0.16 U	0.14 U	0.13 U	0.2 U	0.38 U	0.14 U	0.36 U	0.81 U
Mercury	0.34 J	0.32 J	0.53	0.5	0.55	1	0.13	0.025 UJ
Nickel	0.048 U	0.045 U	0.05 UJ	0.047 UJ	0.047 UJ	0.042 UJ	0.045 UJ	0.041 UJ
Potassium	3970 J	3730 J	4200 J	4010 J	4120 J	3820 J	4110 J	4650 J
Selenium	0.52 J	0.62 J	0.8 J	0.6 J	0.54 J	0.56 J	0.57 J	0.57 J
Vanadium	0.053 U	0.05 U	0.054 U	0.052 U	0.051 U	0.046 U	0.05 U	0.045 UJ
Zinc	4.3 U	4.6 U	4.4	4.6	4.5	3.6	6.1	6.3
PERCENT LIPIDS	0.4	0.5	0.4	0.4	0.2	0.2	0.3	0.4
% MOISTURE	79.5	77.7	78.8	78.5	79.3	82.7	79.7	80.7

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TABLE 2-195
LARGE FISH FILLET TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-15-F	LF-LB-16-F
Reach	7	7
Species	brown bullhead	brown bullhead
SVOCs (ug/Kg)		
Benzo(g,h,i)perylene	1100 U	3300 U
PCB/Pesticides (ug/Kg)		
4,4'-DDD	6.4 J	2 U
4,4'-DDE	32 J	8.2
alpha-Chlordane	2.7 U	1 U
Aroclor-1260	130 J	18
Heptachlor	2.7 U	1 U
Heptachlor epoxide	2.7 U	1 U
Metals (mg/Kg)		
Aluminum	2.8 UJ	1.7 UJ
Arsenic	0.082 UJ	0.086 UJ
Barium	0.13 U	0.18 UJ
Chromium	0.072 UJ	0.073 UJ
Cobalt	0.039 UJ	0.041 UJ
Copper	0.57 U	0.23 U
Iron	24.9 J	12.3 J
Lead	0.059	0.061
Manganese	0.4 U	0.38 U
Mercury	0.15 UJ	0.028 UJ
Nickel	0.039 UJ	0.041 UJ
Potassium	4420 J	3560 J
Selenium	0.66 J	0.55 J
Vanadium	0.047 UJ	0.045 UJ
Zinc	6.1	4.6
PERCENT LIPIDS	1	0.6
% MOISTURE	79	82.2

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TABLE 2-196
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 7	550 - 1400	430
1,2-Dichlorobenzene						0 / 7	550 - 1400	430
1,3-Dichlorobenzene						0 / 7	550 - 1400	430
1,4-Dichlorobenzene						0 / 7	550 - 1400	430
2,2'-oxybis(1-Chloropropane)						0 / 7	550 - 1400	430
2,4,5-Trichlorophenol						0 / 7	1300 - 3400	1043
2,4,6-Trichlorophenol						0 / 7	550 - 1400	430
2,4-Dichlorophenol						0 / 7	550 - 1400	430
2,4-Dimethylphenol						0 / 7	550 - 1400	430
2,4-Dinitrophenol						0 / 7	1300 - 3400	1043
2,4-Dinitrotoluene						0 / 7	550 - 1400	430
2,6-Dinitrotoluene						0 / 7	550 - 1400	430
2-Chloronaphthalene						0 / 7	550 - 1400	430
2-Chlorophenol						0 / 7	550 - 1400	430
2-Methylnaphthalene						0 / 7	550 - 1400	430
2-Methylphenol						0 / 7	550 - 1400	430
2-Nitroaniline						0 / 7	1300 - 3400	1043
2-Nitrophenol						0 / 7	550 - 1400	430
3,3'-Dichlorobenzidine						0 / 7	550 - 1400	430
3-Nitroaniline						0 / 7	1300 - 3400	1043
4,6-Dinitro-2-methylphenol						0 / 7	1300 - 3400	1043
4-Bromophenyl-phenylether						0 / 7	550 - 1400	430
4-Chloro-3-Methylphenol						0 / 7	550 - 1400	430
4-Chloroaniline						0 / 7	550 - 1400	430
4-Chlorophenyl-phenylether						0 / 7	550 - 1400	430
4-Methylphenol						0 / 7	550 - 1400	430
4-Nitroaniline						0 / 7	1300 - 3400	1043
4-Nitrophenol						0 / 7	1300 - 3400	1043
Acenaphthene						0 / 7	550 - 1400	430
Acenaphthylene						0 / 7	550 - 1400	430
Anthracene						0 / 7	550 - 1400	430
Benzo(a)anthracene						0 / 7	550 - 1400	430
Benzo(a)pyrene						0 / 7	550 - 1400	430
Benzo(b)fluoranthene						0 / 7	550 - 1400	430
Benzo(g,h,i)perylene						0 / 7	550 - 1400	430
Benzo(k)fluoranthene						0 / 7	550 - 1400	430
bis (2-Chloroethoxy) methane						0 / 7	550 - 1400	430
bis (2-Chloroethyl) Ether						0 / 7	550 - 1400	430
bis (2-Ethylhexyl) phthalate						0 / 7	550 - 1400	430
Butylbenzylphthalate						0 / 7	550 - 1400	430
Carbazole						0 / 7	550 - 1400	430
Chrysene						0 / 7	550 - 1400	430
Dibenz(a,h)anthracene						0 / 7	550 - 1400	430
Dibenzofuran						0 / 7	550 - 1400	430
Diethylphthalate						0 / 7	550 - 1400	430
Dimethylphthalate						0 / 7	550 - 1400	430
Di-n-butylphthalate						0 / 7	550 - 1400	430
Di-n-octylphthalate						0 / 7	550 - 1400	430
Fluoranthene						0 / 7	550 - 1400	430
Fluorene						0 / 7	550 - 1400	430
Hexachlorobenzene						0 / 7	550 - 1400	430
Hexachlorobutadiene						0 / 7	550 - 1400	430
Hexachlorocyclopentadiene						0 / 7	550 - 1400	430
Hexachloroethane						0 / 7	550 - 1400	430
Indeno(1,2,3-cd)pyrene						0 / 7	550 - 1400	430
Isophorone						0 / 7	550 - 1400	430
Naphthalene						0 / 7	550 - 1400	430
Nitrobenzene						0 / 7	550 - 1400	430
N-Nitroso-di-n-propylamine						0 / 7	550 - 1400	430
N-nitrosodiphenylamine						0 / 7	550 - 1400	430
Pentachlorophenol						0 / 6	1300 - 3400	1108
Phenanthrene						0 / 7	550 - 1400	430
Phenol						0 / 7	550 - 1400	430
Pyrene						0 / 7	550 - 1400	430

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TABLE 2-196
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.1	J	9.8		LF-LK-06-F	8 / 9	2.6	4.8
4,4'-DDE	3.8	J	26		LF-RV-01-F	9 / 9	N/A	10
4,4'-DDT	0.84	J	4.6	J	LF-LK-10-F	4 / 8	0.98 - 5	1.8
Aldrin	0.31	J	0.32	J	LF-LK-09-F	2 / 8	0.51 - 2.6	0.46
alpha-BHC						0 / 8	0.51 - 2.6	0.45
alpha-Chlordane	1.3	J	8.9	J	LF-LK-06-F	9 / 9	N/A	4.2
Aroclor-1016						0 / 8	5 - 25	4.4
Aroclor-1221						0 / 8	9.9 - 50	7.5
Aroclor-1232						0 / 8	5 - 25	4.4
Aroclor-1242						0 / 8	5 - 25	4.4
Aroclor-1248						0 / 8	5 - 25	4.4
Aroclor-1254	9.6	J	36	J	LF-RV-03-F	7 / 9	9.9 - 10	16
Aroclor-1260	14	J	110		LF-RV-01-F	9 / 9	N/A	40
beta-BHC	0.3	J	0.3	J	LF-LK-10-F	1 / 8	0.51 - 2.6	0.45
delta-BHC	0.36	J	0.58	J	LF-LK-09-F	3 / 8	0.51 - 2.6	0.54
Dieldrin	0.77	J	2.9	J	LF-RV-03-F	9 / 9	N/A	1.8
Endosulfan I						0 / 8	0.51 - 2.6	0.45
Endosulfan II	2.6	J	2.6	J	LF-RV-01-F	1 / 8	0.98 - 5	1.1
Endosulfan sulfate						0 / 8	0.98 - 5	0.87
Endrin	0.72	J	2.4	J	LF-RV-01-F	6 / 8	0.98 - 5	1.3
Endrin aldehyde	0.63	J	2.7	J	LF-RV-01-F	4 / 8	0.98 - 5	1.2
Endrin ketone						0 / 8	0.98 - 5	0.87
gamma-BHC (lindane)						0 / 8	0.51 - 2.6	0.45
gamma-Chlordane	0.76	J	5.1		LF-LK-06-F	9 / 9	N/A	2.5
Heptachlor						0 / 8	0.51 - 2.6	0.45
Heptachlor epoxide	0.3	J	1.7	J	LF-RV-03-F	5 / 9	0.51 - 1	0.54
Methoxychlor						0 / 8	5.1 - 26	4.5
Toxaphene						0 / 8	51 - 260	45
Metals - mg/Kg								
Aluminum	1.3	J	4.2	J	LF-LK-07-F	4 / 9	0.49 - 2.3	1.5
Antimony	0.092		0.16		LF-LK-07-F	3 / 9	0.082 - 0.1	0.070
Arsenic						0 / 9	0.071 - 0.42	0.10
Barium						0 / 9	0.11 - 0.19	0.071
Beryllium						0 / 9	0.0068 - 0.012	0.0049
Cadmium	0.012		0.017		LF-LK-07-F	4 / 9	0.0085 - 0.012	0.0094
Calcium						0 / 9	69.4 - 763	183
Chromium	0.068	J	0.16	J	LF-LK-07-F	6 / 9	0.087 - 0.1	0.076
Cobalt	0.041	J	0.045	J	LF-LK-07-F	3 / 9	0.032 - 0.041	0.027
Copper	0.16		0.62		LF-LK-06-F	9 / 9	N/A	0.38
Cyanide						0 / 9	0.47 - 0.57	0.27
Iron	10.4	J	12.9	J	LF-LK-07-F	3 / 9	2.8 - 8.5	5.7
Lead	0.062	J	0.062	J	LF-RV-03-F	1 / 9	0.051 - 0.13	0.039
Magnesium						0 / 9	239 - 316	133
Manganese						0 / 9	0.1 - 0.5	0.12
Mercury	0.023	J	0.58	J	LF-RV-01-F	5 / 9	0.058 - 0.096	0.10
Nickel						0 / 9	0.034 - 0.068	0.024
Potassium	3350	J	4370		LF-RV-02-F	9 / 9	N/A	3696
Selenium	0.27	J	0.78	J	LF-RV-03-F	9 / 9	N/A	0.47
Silver						0 / 9	0.027 - 0.064	0.020
Sodium						0 / 9	282 - 472	193
Thallium						0 / 9	0.1 - 0.15	0.063
Vanadium						0 / 9	0.042 - 0.36	0.057
Zinc	4.8		7.6		LF-LK-10-F	7 / 9	6.9 - 7.6	5.7
PERCENT LIPIDS	0.3		1.1		LF-RV-01-F	9 / 9	N/A	0.56
% MOISTURE	78.5		83.8		LF-LK-06-F	9 / 9	N/A	81

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-197
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 5	1100 - 2200	770
1,2-Dichlorobenzene						0 / 5	1100 - 2200	770
1,3-Dichlorobenzene						0 / 5	1100 - 2200	770
1,4-Dichlorobenzene						0 / 5	1100 - 2200	770
2,2'-oxybis(1-Chloropropane)						0 / 5	1100 - 2200	770
2,4,5-Trichlorophenol						0 / 5	2600 - 5300	1890
2,4,6-Trichlorophenol						0 / 5	1100 - 2200	770
2,4-Dichlorophenol						0 / 5	1100 - 2200	770
2,4-Dimethylphenol						0 / 5	1100 - 2200	770
2,4-Dinitrophenol						0 / 5	2600 - 5300	1890
2,4-Dinitrotoluene						0 / 5	1100 - 2200	770
2,6-Dinitrotoluene						0 / 5	1100 - 2200	770
2-Chloronaphthalene						0 / 5	1100 - 2200	770
2-Chlorophenol						0 / 5	1100 - 2200	770
2-Methylnaphthalene						0 / 5	1100 - 2200	770
2-Methylphenol						0 / 5	1100 - 2200	770
2-Nitroaniline						0 / 5	2600 - 5300	1890
2-Nitrophenol						0 / 5	1100 - 2200	770
3,3'-Dichlorobenzidine						0 / 5	1100 - 2200	770
3-Nitroaniline						0 / 5	2600 - 5300	1890
4,6-Dinitro-2-methylphenol						0 / 5	2600 - 5300	1890
4-Bromophenyl-phenylether						0 / 5	1100 - 2200	770
4-Chloro-3-Methylphenol						0 / 5	1100 - 2200	770
4-Chloroaniline						0 / 5	1100 - 2200	770
4-Chlorophenyl-phenylether						0 / 5	1100 - 2200	770
4-Methylphenol						0 / 5	1100 - 2200	770
4-Nitroaniline						0 / 5	2600 - 5300	1890
4-Nitrophenol						0 / 5	2600 - 5300	1890
Acenaphthene						0 / 5	1100 - 2200	770
Acenaphthylene						0 / 5	1100 - 2200	770
Anthracene						0 / 5	1100 - 2200	770
Benzo(a)anthracene						0 / 5	1100 - 2200	770
Benzo(a)pyrene						0 / 5	1100 - 2200	770
Benzo(b)fluoranthene						0 / 5	1100 - 2200	770
Benzo(g,h,i)perylene						0 / 5	1100 - 2200	770
Benzo(k)fluoranthene						0 / 5	1100 - 2200	770
bis (2-Chloroethoxy) methane						0 / 5	1100 - 2200	770
bis (2-Chloroethyl) Ether						0 / 5	1100 - 2200	770
bis (2-Ethylhexyl) phthalate						0 / 5	1100 - 2200	770
Butylbenzylphthalate						0 / 5	1100 - 2200	770
Carbazole						0 / 5	1100 - 2200	770
Chrysene						0 / 5	1100 - 2200	770
Dibenz(a,h)anthracene						0 / 5	1100 - 2200	770
Dibenzofuran						0 / 5	1100 - 2200	770
Diethylphthalate	410	J	410	J	LF-LK-14-F	1 / 5	1100 - 2200	692
Dimethylphthalate						0 / 5	1100 - 2200	770
Di-n-butylphthalate						0 / 5	1100 - 2200	770
Di-n-octylphthalate						0 / 5	1100 - 2200	770
Fluoranthene						0 / 5	1100 - 2200	770
Fluorene						0 / 5	1100 - 2200	770
Hexachlorobenzene						0 / 5	1100 - 2200	770
Hexachlorobutadiene						0 / 5	1100 - 2200	770
Hexachlorocyclopentadiene						0 / 5	1100 - 2200	770
Hexachloroethane						0 / 5	1100 - 2200	770
Indeno(1,2,3-cd)pyrene						0 / 5	1100 - 2200	770
Isophorone						0 / 5	1100 - 2200	770
Naphthalene						0 / 5	1100 - 2200	770
Nitrobenzene						0 / 5	1100 - 2200	770
N-Nitroso-di-n-propylamine						0 / 5	1100 - 2200	770
N-nitrosodiphenylamine						0 / 5	1100 - 2200	770
Pentachlorophenol						0 / 5	2600 - 5300	1890
Phenanthrene						0 / 5	1100 - 2200	770
Phenol						0 / 5	1100 - 2200	770
Pyrene						0 / 5	1100 - 2200	770

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TABLE 2-197
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.3	J	4.7		LF-LK-14-F	5 / 5	N/A	3.0
4,4'-DDE	5.7		13		LF-LK-13-F	5 / 5	N/A	10
4,4'-DDT	0.64	J	1.7	J	LF-LK-13-F	5 / 5	N/A	1.3
Aldrin	0.37	J	0.37	J	LF-LK-14-F	1 / 5	0.51 - 1.5	0.38
alpha-BHC						0 / 5	0.51 - 1.5	0.35
alpha-Chlordane	1.3	J	3		LF-LK-14-F	5 / 5	N/A	1.9
Aroclor-1016						0 / 5	5 - 15	3.5
Aroclor-1221						0 / 5	9.9 - 30	7.0
Aroclor-1232						0 / 5	5 - 15	3.5
Aroclor-1242						0 / 5	5 - 15	3.5
Aroclor-1248						0 / 5	5 - 15	3.5
Aroclor-1254	17		35		LF-LK-36-F	5 / 5	N/A	27
Aroclor-1260	15		38		LF-LK-36-F	5 / 5	N/A	28
beta-BHC						0 / 5	0.51 - 1.5	0.35
delta-BHC						0 / 5	0.51 - 1.5	0.35
Dieldrin	0.7	J	1.4		LF-LK-14-F	4 / 5	3	1.1
Endosulfan I						0 / 5	0.51 - 1.5	0.35
Endosulfan II						0 / 5	0.98 - 3	0.71
Endosulfan sulfate						0 / 5	0.98 - 3	0.70
Endrin	1.2		2.8	J	LF-LK-36-F	5 / 5	N/A	2.1
Endrin aldehyde	0.79	J	1.1		LF-LK-13-F	4 / 5	0.99	0.87
Endrin ketone						0 / 5	0.98 - 3	0.70
gamma-BHC (lindane)						0 / 5	0.51 - 1.5	0.35
gamma-Chlordane	0.58		1.1		LF-LK-14-F	4 / 5	1.5	0.75
Heptachlor						0 / 5	0.51 - 1.5	0.35
Heptachlor epoxide						0 / 5	0.51 - 1.5	0.35
Methoxychlor						0 / 5	5.1 - 15	3.5
Toxaphene						0 / 5	51 - 150	35
Metals - mg/Kg								
Aluminum						0 / 5	1.2 - 1.9	0.76
Antimony						0 / 5	0.1 - 0.11	0.052
Arsenic						0 / 5	0.095 - 0.1	0.049
Barium						0 / 5	0.15 - 0.17	0.080
Beryllium						0 / 5	0.012 - 0.013	0.0063
Cadmium	0.015		0.017		LF-LK-13-F	3 / 5	0.014	0.012
Calcium						0 / 5	104 - 1020	213
Chromium	0.058	J	0.07	J	LF-LK-14-F	5 / 5	N/A	0.063
Cobalt	0.045	J	0.045	J	LF-LK-36-F	1 / 5	0.046 - 0.049	0.028
Copper	0.14		0.17		LF-LK-11-F	5 / 5	N/A	0.16
Cyanide						0 / 5	0.36 - 0.48	0.22
Iron	4	J	4	J	LF-LK-11-F	1 / 5	2.8 - 4.1	2.2
Lead	0.072	J	0.072	J	LF-LK-11-F	1 / 5	0.068 - 0.073	0.042
Magnesium						0 / 5	298 - 309	152
Manganese						0 / 5	0.077 - 0.22	0.071
Mercury	0.13		0.26	J	LF-LK-36-F	5 / 5	N/A	0.17
Nickel						0 / 5	0.045 - 0.049	0.024
Potassium	3370	J	3690	J	LF-LK-13-F	5 / 5	N/A	3520
Selenium	0.67	J	0.84	J	LF-LK-14-F	5 / 5	N/A	0.73
Silver						0 / 5	0.036 - 0.039	0.019
Sodium						0 / 5	318 - 357	164
Thallium						0 / 5	0.14 - 0.15	0.071
Vanadium						0 / 5	0.05 - 0.054	0.026
Zinc	5.4		7.4		LF-LK-36-F	5 / 5	N/A	6.3
PERCENT LIPIDS	0.3		0.6		LF-LK-14-F	5 / 5	N/A	0.38
% MOISTURE	78.7		80.2		LF-LK-11-F	5 / 5	N/A	79

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-198
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 6	1100 - 1300	583
1,2-Dichlorobenzene						0 / 6	1100 - 1300	583
1,3-Dichlorobenzene						0 / 6	1100 - 1300	583
1,4-Dichlorobenzene						0 / 6	1100 - 1300	583
2,2'-oxybis(1-Chloropropane)						0 / 6	1100 - 1300	583
2,4,5-Trichlorophenol						0 / 6	2600 - 3200	1417
2,4,6-Trichlorophenol						0 / 6	1100 - 1300	583
2,4-Dichlorophenol						0 / 6	1100 - 1300	583
2,4-Dimethylphenol						0 / 6	1100 - 1300	583
2,4-Dinitrophenol						0 / 6	2600 - 3200	1417
2,4-Dinitrotoluene						0 / 6	1100 - 1300	583
2,6-Dinitrotoluene						0 / 6	1100 - 1300	583
2-Chloronaphthalene						0 / 6	1100 - 1300	583
2-Chlorophenol						0 / 6	1100 - 1300	583
2-Methylnaphthalene						0 / 6	1100 - 1300	583
2-Methylphenol						0 / 6	1100 - 1300	583
2-Nitroaniline						0 / 6	2600 - 3200	1417
2-Nitrophenol						0 / 6	1100 - 1300	583
3,3'-Dichlorobenzidine						0 / 6	1100 - 1300	583
3-Nitroaniline						0 / 6	2600 - 3200	1417
4,6-Dinitro-2-methylphenol						0 / 6	2600 - 3200	1417
4-Bromophenyl-phenylether						0 / 6	1100 - 1300	583
4-Chloro-3-Methylphenol						0 / 6	1100 - 1300	583
4-Chloroaniline						0 / 6	1100 - 1300	583
4-Chlorophenyl-phenylether						0 / 6	1100 - 1300	583
4-Methylphenol						0 / 6	1100 - 1300	583
4-Nitroaniline						0 / 6	2600 - 3200	1417
4-Nitrophenol						0 / 6	2600 - 3200	1417
Acenaphthene						0 / 6	1100 - 1300	583
Acenaphthylene						0 / 6	1100 - 1300	583
Anthracene						0 / 6	1100 - 1300	583
Benzo(a)anthracene						0 / 6	1100 - 1300	583
Benzo(a)pyrene						0 / 6	1100 - 1300	583
Benzo(b)fluoranthene						0 / 6	1100 - 1300	583
Benzo(g,h,i)perylene						0 / 6	1100 - 1300	583
Benzo(k)fluoranthene						0 / 6	1100 - 1300	583
bis (2-Chloroethoxy) methane						0 / 6	1100 - 1300	583
bis (2-Chloroethyl) Ether						0 / 6	1100 - 1300	583
bis (2-Ethylhexyl) phthalate						0 / 6	1100 - 1300	583
Butylbenzylphthalate						0 / 6	1100 - 1300	583
Carbazole						0 / 6	1100 - 1300	583
Chrysene						0 / 6	1100 - 1300	583
Dibenz(a,h)anthracene						0 / 6	1100 - 1300	583
Dibenzofuran						0 / 6	1100 - 1300	583
Diethylphthalate						0 / 6	1100 - 1300	583
Dimethylphthalate						0 / 6	1100 - 1300	583
Di-n-butylphthalate						0 / 6	1100 - 1300	583
Di-n-octylphthalate						0 / 6	1100 - 1300	583
Fluoranthene						0 / 6	1100 - 1300	583
Fluorene						0 / 6	1100 - 1300	583
Hexachlorobenzene						0 / 6	1100 - 1300	583
Hexachlorobutadiene						0 / 6	1100 - 1300	583
Hexachlorocyclopentadiene						0 / 6	1100 - 1300	583
Hexachloroethane						0 / 6	1100 - 1300	583
Indeno(1,2,3-cd)pyrene						0 / 6	1100 - 1300	583
Isophorone						0 / 6	1100 - 1300	583
Naphthalene						0 / 6	1100 - 1300	583
Nitrobenzene						0 / 6	1100 - 1300	583
N-Nitroso-di-n-propylamine						0 / 6	1100 - 1300	583
N-nitrosodiphenylamine						0 / 6	1100 - 1300	583
Pentachlorophenol						0 / 6	2600 - 3200	1417
Phenanthrene						0 / 6	1100 - 1300	583
Phenol						0 / 6	1100 - 1300	583
Pyrene						0 / 6	1100 - 1300	583

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TABLE 2-198
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.1	J	20.5		LF-RV-10-F	4 / 6	5.3 - 6.3	8.3
4,4'-DDE	15	J	120		LF-RV-10-F	4 / 6	19 - 24	44
4,4'-DDT	3.2		18.5		LF-RV-10-F	4 / 6	2	5.7
Aldrin	0.48	J	0.53	J	LF-RV-10-F	2 / 6	1 - 5.1	0.89
alpha-BHC						0 / 6	1 - 5.1	0.88
alpha-Chlordane	1.5	J	1.9	J	LF-RV-06-F	2 / 6	2.9 - 8.4	2.0
Aroclor-1016						0 / 6	9.9 - 50	8.7
Aroclor-1221						0 / 6	20 - 99	17
Aroclor-1232						0 / 6	9.9 - 50	8.7
Aroclor-1242						0 / 6	9.9 - 50	8.7
Aroclor-1248						0 / 6	9.9 - 50	8.7
Aroclor-1254	31	J	140		LF-RV-15-F	6 / 6	N/A	67
Aroclor-1260	26	J	315		LF-RV-10-F	6 / 6	N/A	90
beta-BHC						0 / 6	1 - 5.1	0.88
delta-BHC						0 / 6	1 - 5.1	0.88
Dieldrin	0.92	J	1.5	J	LF-RV-13-F	4 / 6	2 - 9.8	1.8
Endosulfan I						0 / 6	1 - 5.1	0.88
Endosulfan II						0 / 6	2 - 9.8	2.3
Endosulfan sulfate	1.2	J	1.8	J	LF-RV-10-F	2 / 6	2 - 9.8	1.9
Endrin	2.4	J	3.4	J	LF-RV-05-F	2 / 6	2 - 13	3.3
Endrin aldehyde	1.8	J	8.9		LF-RV-10-F	3 / 6	2 - 9.8	3.5
Endrin ketone						0 / 6	2 - 9.8	1.7
gamma-BHC (lindane)						0 / 6	1 - 5.1	0.88
gamma-Chlordane	0.56	J	2.6	J	LF-RV-15-F	6 / 6	N/A	1.2
Heptachlor						0 / 6	1 - 5.1	0.88
Heptachlor epoxide						0 / 6	1 - 5.1	0.88
Methoxychlor						0 / 6	10 - 51	8.8
Toxaphene						0 / 6	100 - 510	88
Metals - mg/Kg								
Aluminum	1.1	J	2	J	LF-RV-05-F	6 / 6	N/A	1.6
Antimony	0.14		0.14		LF-RV-06-F	1 / 6	0.089 - 0.11	0.066
Arsenic						0 / 6	0.085 - 0.13	0.049
Barium						0 / 6	0.14 - 0.17	0.077
Beryllium						0 / 6	0.011 - 0.013	0.0061
Cadmium						0 / 6	0.012 - 0.015	0.0067
Calcium						0 / 6	75.7 - 802	160
Chromium	0.094	J	0.1	J	LF-RV-05-F	2 / 6	0.062 - 0.076	0.055
Cobalt						0 / 6	0.04 - 0.05	0.023
Copper	0.1175	J	0.24		LF-RV-05-F	5 / 6	0.24	0.17
Cyanide						0 / 6	0.41 - 0.52	0.23
Iron						0 / 6	3.5 - 5.9	2.3
Lead						0 / 6	0.061 - 0.097	0.037
Magnesium						0 / 6	257 - 299	140
Manganese						0 / 6	0.088 - 0.25	0.074
Mercury	0.1	J	0.57	J	LF-RV-10-F	6 / 6	N/A	0.25
Nickel						0 / 6	0.04 - 0.05	0.023
Potassium	3005	J	3770	J	LF-RV-06-F	6 / 6	N/A	3418
Selenium	0.39	J	0.6	J	LF-RV-05-F	6 / 6	N/A	0.51
Silver	0.037	J	0.037	J	LF-RV-06-F	1 / 6	0.033 - 0.04	0.022
Sodium						0 / 6	295 - 436	173
Thallium						0 / 6	0.12 - 0.15	0.067
Vanadium						0 / 6	0.049 - 0.089	0.031
Zinc	4.95	J	7.9	J	LF-RV-14-F	6 / 6	N/A	6.6
PERCENT LIPIDS	0.2		0.7		LF-RV-15-F	6 / 6	N/A	0.38
% MOISTURE	78.9		82.5		LF-RV-10-F	6 / 6	N/A	80

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-199
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 6	1100	550
1,2-Dichlorobenzene						0 / 6	1100	550
1,3-Dichlorobenzene						0 / 6	1100	550
1,4-Dichlorobenzene						0 / 6	1100	550
2,2'-oxybis(1-Chloropropane)						0 / 6	1100	550
2,4,5-Trichlorophenol						0 / 6	2600 - 2700	1342
2,4,6-Trichlorophenol						0 / 6	1100	550
2,4-Dichlorophenol						0 / 6	1100	550
2,4-Dimethylphenol						0 / 6	1100	550
2,4-Dinitrophenol						0 / 6	2600 - 2700	1342
2,4-Dinitrotoluene						0 / 6	1100	550
2,6-Dinitrotoluene						0 / 6	1100	550
2-Chloronaphthalene						0 / 6	1100	550
2-Chlorophenol						0 / 6	1100	550
2-Methylnaphthalene						0 / 6	1100	550
2-Methylphenol						0 / 6	1100	550
2-Nitroaniline						0 / 6	2600 - 2700	1342
2-Nitrophenol						0 / 6	1100	550
3,3'-Dichlorobenzidine						0 / 6	1100	550
3-Nitroaniline						0 / 6	2600 - 2700	1342
4,6-Dinitro-2-methylphenol						0 / 6	2600 - 2700	1342
4-Bromophenyl-phenylether						0 / 6	1100	550
4-Chloro-3-Methylphenol						0 / 6	1100	550
4-Chloroaniline						0 / 6	1100	550
4-Chlorophenyl-phenylether						0 / 6	1100	550
4-Methylphenol						0 / 6	1100	550
4-Nitroaniline						0 / 6	2600 - 2700	1342
4-Nitrophenol						0 / 6	2600 - 2700	1342
Acenaphthene						0 / 6	1100	550
Acenaphthylene						0 / 6	1100	550
Anthracene						0 / 6	1100	550
Benzo(a)anthracene						0 / 6	1100	550
Benzo(a)pyrene						0 / 6	1100	550
Benzo(b)fluoranthene						0 / 6	1100	550
Benzo(g,h,i)perylene						0 / 6	1100	550
Benzo(k)fluoranthene						0 / 6	1100	550
bis (2-Chloroethoxy) methane						0 / 6	1100	550
bis (2-Chloroethyl) Ether						0 / 6	1100	550
bis (2-Ethylhexyl) phthalate						0 / 6	1100	550
Butylbenzylphthalate						0 / 6	1100	550
Carbazole						0 / 6	1100	550
Chrysene						0 / 6	1100	550
Dibenz(a,h)anthracene						0 / 6	1100	550
Dibenzofuran						0 / 6	1100	550
Diethylphthalate						0 / 6	1100	550
Dimethylphthalate						0 / 6	1100	550
Di-n-butylphthalate						0 / 6	1100	550
Di-n-octylphthalate						0 / 6	1100	550
Fluoranthene						0 / 6	1100	550
Fluorene						0 / 6	1100	550
Hexachlorobenzene						0 / 6	1100	550
Hexachlorobutadiene						0 / 6	1100	550
Hexachlorocyclopentadiene						0 / 6	1100	550
Hexachloroethane						0 / 6	1100	550
Indeno(1,2,3-cd)pyrene						0 / 6	1100	550
Isophorone						0 / 6	1100	550
Naphthalene						0 / 6	1100	550
Nitrobenzene						0 / 6	1100	550
N-Nitroso-di-n-propylamine						0 / 6	1100	550
N-nitrosodiphenylamine						0 / 6	1100	550
Pentachlorophenol						0 / 6	2600 - 2700	1342
Phenanthrene						0 / 6	1100	550
Phenol						0 / 6	1100	550
Pyrene						0 / 6	1100	550

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TABLE 2-199
LARGE FISH FILLET TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4		27		LF-LK-21-F	6 / 6	N/A	13
4,4'-DDE	6.1		83		LF-LK-21-F	6 / 6	N/A	36
4,4'-DDT	1.1	J	6.7	J	LF-LK-21-F	4 / 6	1.1 - 4.9	2.8
Aldrin	0.53	J	0.53	J	LF-LK-22-F	1 / 6	0.55 - 5.1	1.1
alpha-BHC						0 / 6	0.51 - 5.1	1.0
alpha-Chlordane	3.5	J	11	J	LF-LK-24-F	5 / 6	11	5.4
Aroclor-1016						0 / 6	5 - 50	10
Aroclor-1221						0 / 6	9.9 - 99	20
Aroclor-1232						0 / 6	5 - 50	10
Aroclor-1242						0 / 6	5 - 50	10
Aroclor-1248	7.9		7.9		LF-LK-25-F	1 / 6	5 - 50	11
Aroclor-1254	15		180		LF-LK-21-F	6 / 6	N/A	77
Aroclor-1260	25		110		LF-LK-21-F	6 / 6	N/A	52
beta-BHC						0 / 6	0.51 - 5.1	1.0
delta-BHC						0 / 6	0.51 - 5.1	1.0
Dieldrin	1.615	J	2.3	J	LF-LK-24-F	2 / 6	1.1 - 9.8	2.1
Endosulfan I	0.38	J	0.38	J	LF-LK-25-F	1 / 6	0.51 - 5.1	1.0
Endosulfan II						0 / 6	1 - 9.8	1.8
Endosulfan sulfate	0.8	J	0.8	J	LF-LK-22-F	1 / 6	1.1 - 9.8	2.0
Endrin	2.2	J	9.8	J	LF-LK-24-F	4 / 6	1.1 - 13	4.4
Endrin aldehyde	0.85	J	0.85	J	LF-LK-22-F	1 / 6	1.1 - 9.8	2.0
Endrin ketone	0.61	J	0.61	J	LF-LK-25-F	1 / 6	0.98 - 9.8	2.0
gamma-BHC (lindane)						0 / 6	0.51 - 5.1	1.0
gamma-Chlordane	1.2	J	3.6	J	LF-LK-24-F	6 / 6	N/A	2.3
Heptachlor	0.41	J	0.41	J	LF-LK-22-F	1 / 6	0.55 - 5.1	1.0
Heptachlor epoxide	0.53	J	0.53	J	LF-LK-25-F	1 / 6	0.51 - 5.1	1.1
Methoxychlor						0 / 6	5.1 - 51	10
Toxaphene						0 / 6	51 - 510	101
Metals - mg/Kg								
Aluminum	0.87	J	0.87	J	LF-LK-21-F	1 / 6	0.71 - 2.6	0.67
Antimony						0 / 6	0.077 - 0.1	0.047
Arsenic	0.17		0.17		LF-LK-25-F	1 / 6	0.074 - 0.097	0.065
Barium						0 / 6	0.12 - 0.16	0.074
Beryllium						0 / 6	0.0091 - 0.012	0.0055
Cadmium	0.014		0.023		LF-LK-25-F	5 / 6	0.012	0.015
Calcium						0 / 6	82.1 - 1380	155
Chromium	0.053	J	0.14	J	LF-LK-20-F	5 / 6	0.07	0.079
Cobalt	0.054	J	0.054	J	LF-LK-25-F	1 / 6	0.035 - 0.046	0.027
Copper	0.12		0.8		LF-LK-25-F	6 / 6	N/A	0.25
Cyanide						0 / 6	0.4 - 0.53	0.23
Iron	43.7	J	43.7	J	LF-LK-25-F	1 / 6	2.8 - 4.8	8.8
Lead	0.076	J	2.3	J	LF-LK-25-F	2 / 6	0.053 - 0.068	0.42
Magnesium						0 / 6	265 - 1020	200
Manganese						0 / 6	0.093 - 2.9	0.28
Mercury	0.018		0.2	J	LF-LK-21-F	6 / 6	N/A	0.15
Nickel						0 / 6	0.035 - 0.046	0.022
Potassium	3280		4060	J	LF-LK-25-F	6 / 6	N/A	3495
Selenium	0.45	J	0.65	J	LF-LK-24-F	6 / 6	N/A	0.57
Silver						0 / 6	0.028 - 0.037	0.017
Sodium						0 / 6	254 - 584	173
Thallium						0 / 6	0.11 - 0.14	0.065
Vanadium						0 / 6	0.039 - 0.2	0.036
Zinc	5	J	6.9		LF-LK-25-F	6 / 6	N/A	5.8
PERCENT LIPIDS	0.4		0.9		LF-LK-24-F	6 / 6	N/A	0.64
% MOISTURE	78.4		81.6		LF-LK-25-F	6 / 6	N/A	80

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-200
LARGE FISH FILLET TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 24	550 - 2200	569
1,2-Dichlorobenzene						0 / 24	550 - 2200	569
1,3-Dichlorobenzene						0 / 24	550 - 2200	569
1,4-Dichlorobenzene						0 / 24	550 - 2200	569
2,2'-oxybis(1-Chloropropane)						0 / 24	550 - 2200	569
2,4,5-Trichlorophenol						0 / 24	1300 - 5300	1388
2,4,6-Trichlorophenol						0 / 24	550 - 2200	569
2,4-Dichlorophenol						0 / 24	550 - 2200	569
2,4-Dimethylphenol						0 / 24	550 - 2200	569
2,4-Dinitrophenol						0 / 24	1300 - 5300	1388
2,4-Dinitrotoluene						0 / 24	550 - 2200	569
2,6-Dinitrotoluene						0 / 24	550 - 2200	569
2-Chloronaphthalene						0 / 24	550 - 2200	569
2-Chlorophenol						0 / 24	550 - 2200	569
2-Methylnaphthalene						0 / 24	550 - 2200	569
2-Methylphenol						0 / 24	550 - 2200	569
2-Nitroaniline						0 / 24	1300 - 5300	1388
2-Nitrophenol						0 / 24	550 - 2200	569
3,3'-Dichlorobenzidine						0 / 24	550 - 2200	569
3-Nitroaniline						0 / 24	1300 - 5300	1388
4,6-Dinitro-2-methylphenol						0 / 24	1300 - 5300	1388
4-Bromophenyl-phenylether						0 / 24	550 - 2200	569
4-Chloro-3-Methylphenol						0 / 24	550 - 2200	569
4-Chloroaniline						0 / 24	550 - 2200	569
4-Chlorophenyl-phenylether						0 / 24	550 - 2200	569
4-Methylphenol						0 / 24	550 - 2200	569
4-Nitroaniline						0 / 24	1300 - 5300	1388
4-Nitrophenol						0 / 24	1300 - 5300	1388
Acenaphthene						0 / 24	550 - 2200	569
Acenaphthylene						0 / 24	550 - 2200	569
Anthracene						0 / 24	550 - 2200	569
Benzo(a)anthracene						0 / 24	550 - 2200	569
Benzo(a)pyrene						0 / 24	550 - 2200	569
Benzo(b)fluoranthene						0 / 24	550 - 2200	569
Benzo(g,h,i)perylene						0 / 24	550 - 2200	569
Benzo(k)fluoranthene						0 / 24	550 - 2200	569
bis (2-Chloroethoxy) methane						0 / 24	550 - 2200	569
bis (2-Chloroethyl) Ether						0 / 24	550 - 2200	569
bis (2-Ethylhexyl) phthalate						0 / 24	550 - 2200	569
Butylbenzylphthalate						0 / 24	550 - 2200	569
Carbazole						0 / 24	550 - 2200	569
Chrysene						0 / 24	550 - 2200	569
Dibenz(a,h)anthracene						0 / 24	550 - 2200	569
Dibenzofuran						0 / 24	550 - 2200	569
Diethylphthalate	410	J	410	J	LF-LK-14-F	1 / 24	550 - 2200	553
Dimethylphthalate						0 / 24	550 - 2200	569
Di-n-butylphthalate						0 / 24	550 - 2200	569
Di-n-octylphthalate						0 / 24	550 - 2200	569
Fluoranthene						0 / 24	550 - 2200	569
Fluorene						0 / 24	550 - 2200	569
Hexachlorobenzene						0 / 24	550 - 2200	569
Hexachlorobutadiene						0 / 24	550 - 2200	569
Hexachlorocyclopentadiene						0 / 24	550 - 2200	569
Hexachloroethane						0 / 24	550 - 2200	569
Indeno(1,2,3-cd)pyrene						0 / 24	550 - 2200	569
Isophorone						0 / 24	550 - 2200	569
Naphthalene						0 / 24	550 - 2200	569
Nitrobenzene						0 / 24	550 - 2200	569
N-Nitroso-di-n-propylamine						0 / 24	550 - 2200	569
N-nitrosodiphenylamine						0 / 24	550 - 2200	569
Pentachlorophenol						0 / 23	1300 - 5300	1420
Phenanthrene						0 / 24	550 - 2200	569
Phenol						0 / 24	550 - 2200	569
Pyrene						0 / 24	550 - 2200	569

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TABLE 2-200
LARGE FISH FILLET TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.1	J	27		LF-LK-21-F	23 / 26	2.6 - 6.3	7.1
4,4'-DDE	3.8	J	120		LF-RV-10-F	24 / 26	19 - 24	24
4,4'-DDT	0.64	J	18.5		LF-RV-10-F	17 / 25	0.98 - 5	2.9
Aldrin	0.31	J	0.53	J	LF-LK-22-F	6 / 25	0.51 - 5.1	0.69
alpha-BHC						0 / 25	0.51 - 5.1	0.67
alpha-Chlordane	1.3	J	11	J	LF-LK-24-F	21 / 26	2.9 - 11	3.5
Aroclor-1016						0 / 25	5 - 50	6.6
Aroclor-1221						0 / 25	9.9 - 99	13
Aroclor-1232						0 / 25	5 - 50	6.6
Aroclor-1242						0 / 25	5 - 50	6.6
Aroclor-1248	7.9		7.9		LF-LK-25-F	1 / 25	5 - 50	6.8
Aroclor-1254	9.6	J	180		LF-LK-21-F	24 / 26	9.9 - 10	44
Aroclor-1260	14	J	315		LF-RV-10-F	26 / 26	N/A	52
beta-BHC	0.3	J	0.3	J	LF-LK-10-F	1 / 25	0.51 - 5.1	0.67
delta-BHC	0.36	J	0.58	J	LF-LK-09-F	3 / 25	0.51 - 5.1	0.70
Dieldrin	0.7	J	2.9	J	LF-RV-03-F	19 / 26	1.1 - 9.8	1.7
Endosulfan I	0.38	J	0.38	J	LF-LK-25-F	1 / 25	0.51 - 5.1	0.67
Endosulfan II	2.6	J	2.6	J	LF-RV-01-F	1 / 25	0.98 - 9.8	1.5
Endosulfan sulfate	0.8	J	1.8	J	LF-RV-10-F	3 / 25	0.98 - 9.8	1.4
Endrin	0.72	J	9.8	J	LF-LK-24-F	17 / 25	0.98 - 13	2.7
Endrin aldehyde	0.63	J	8.9		LF-RV-10-F	12 / 25	0.98 - 9.8	1.9
Endrin ketone	0.61	J	0.61	J	LF-LK-25-F	1 / 25	0.98 - 9.8	1.3
gamma-BHC (lindane)						0 / 25	0.51 - 5.1	0.67
gamma-Chlordane	0.56	J	5.1		LF-LK-06-F	25 / 26	1.5	1.8
Heptachlor	0.41	J	0.41	J	LF-LK-22-F	1 / 25	0.51 - 5.1	0.68
Heptachlor epoxide	0.3	J	1.7	J	LF-RV-03-F	6 / 26	0.51 - 5.1	0.70
Methoxychlor						0 / 25	5.1 - 51	6.7
Toxaphene						0 / 25	51 - 510	67
Metals - mg/Kg								
Aluminum	0.87	J	4.2	J	LF-LK-07-F	11 / 26	0.49 - 2.6	1.2
Antimony	0.092		0.16		LF-LK-07-F	4 / 26	0.077 - 0.11	0.060
Arsenic	0.17		0.17		LF-LK-25-F	1 / 26	0.071 - 0.42	0.070
Barium						0 / 26	0.11 - 0.19	0.075
Beryllium						0 / 26	0.0068 - 0.013	0.0056
Cadmium	0.012		0.023		LF-LK-25-F	12 / 26	0.0085 - 0.015	0.011
Calcium						0 / 26	69.4 - 1380	177
Chromium	0.053	J	0.16	J	LF-LK-07-F	18 / 26	0.062 - 0.1	0.069
Cobalt	0.041	J	0.054	J	LF-LK-25-F	5 / 26	0.032 - 0.05	0.026
Copper	0.1175	J	0.8		LF-LK-25-F	25 / 26	0.24	0.26
Cyanide						0 / 26	0.36 - 0.57	0.24
Iron	4	J	43.7	J	LF-LK-25-F	5 / 26	2.8 - 8.5	4.9
Lead	0.062	J	2.3	J	LF-LK-25-F	4 / 26	0.051 - 0.13	0.13
Magnesium						0 / 26	239 - 1020	154
Manganese						0 / 26	0.077 - 2.9	0.14
Mercury	0.018		0.58	J	LF-RV-01-F	22 / 26	0.058 - 0.096	0.16
Nickel						0 / 26	0.034 - 0.068	0.023
Potassium	3005	J	4370		LF-RV-02-F	26 / 26	N/A	3551
Selenium	0.27	J	0.84	J	LF-LK-14-F	26 / 26	N/A	0.55
Silver	0.037	J	0.037	J	LF-RV-06-F	1 / 26	0.027 - 0.064	0.019
Sodium						0 / 26	254 - 584	178
Thallium						0 / 26	0.1 - 0.15	0.066
Vanadium						0 / 26	0.039 - 0.36	0.040
Zinc	4.8		7.9	J	LF-RV-14-F	24 / 26	6.9 - 7.6	6.0
PERCENT LIPIDS	0.2		1.1		LF-RV-01-F	26 / 26	N/A	0.50
% MOISTURE	78.4		83.8		LF-LK-06-F	26 / 26	N/A	80

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-201
LARGE FISH FILLET TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-06-F	LF-LK-07-F	LF-LK-08-F	LF-LK-09-F	LF-LK-10-F	LF-LK-11-F	LF-LK-12-F	LF-LK-13-F
Reach	3	3	3	3	3	4	4	4
Species	brown bullhead	brown bullhead	brown bullhead	brown bullhead	brown bullhead	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)								
Diethylphthalate	660 U	NA	1100 U	1100 U	1400 U	1100 U	1600 UJ	1200 U
PCB/Pesticides (ug/Kg)								
4,4'-DDD	9.8	2.1 J	6.7 J	5 J	4.6 J	2.6	2.6	2.6
4,4'-DDE	15	3.8 J	7.5 J	5.2 J	6.8 J	5.7	9.6	13
4,4'-DDT	1.7 J	0.99 U	0.84 J	0.99 U	4.6 J	0.64 J	1.4	1.7
Aldrin	1 U	0.51 U	0.31 J	0.32 J	0.51 U	0.51 U	0.51 U	0.51 U
alpha-Chlordane	8.9 J	2.5 J	7.4 J	4.6 J	4.5 J	1.6	1.8	1.6
Aroclor-1248	9.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Aroclor-1254	9.9 U	13 J	22 J	19 J	20 J	17	27	30
Aroclor-1260	61	20 J	29 J	20 J	24 J	15	28	31
beta-BHC	1 U	0.51 U	0.51 U	0.51 U	0.3 J	0.51 U	0.51 U	0.51 U
delta-BHC	1 U	0.51 U	0.36 J	0.58 J	0.56 J	0.51 U	0.51 U	0.51 U
Dieldrin	2.7 J	1 J	2 J	2.1 J	1.8 J	0.7 J	1.2	0.8 J
Endosulfan I	1 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Endosulfan II	2 U	0.99 U	0.99 U	0.99 UJ	0.99 U	1.1 U	0.99 U	0.99 U
Endosulfan sulfate	2 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
Endrin	1.1 J	0.81 J	1.5 J	0.72 J	1.2 J	1.2	2	2.4
Endrin aldehyde	1.2 J	0.99 U	0.63 J	0.99 U	0.85 J	0.99 U	0.97 J	1.1
Endrin ketone	2 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
gamma-Chlordane	5.1	1.7 J	4.8 J	3 J	2.9 J	0.58	0.71	0.63
Heptachlor	1 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Heptachlor epoxide	1 U	0.51 U	0.51 U	0.31 J	0.3 J	0.51 U	0.51 U	0.51 U
Metals (mg/Kg)								
Aluminum	0.49 UJ	4.2 J	1.5 J	1.3 J	3.3 J	1.4 UJ	1.2 UJ	1.8 UJ
Antimony	0.097 U	0.16	0.1	0.082 U	0.1 U	0.11 U	0.1 U	0.1 U
Arsenic	0.085 UJ	0.42 UJ	0.21 UJ	0.33 UJ	0.39 UJ	0.1 U	0.098 U	0.096 U
Cadmium	0.012	0.017	0.012 U	0.011 U	0.014	0.014 U	0.014 U	0.017
Chromium	0.071 J	0.16 J	0.068 J	0.076 J	0.084 J	0.061 J	0.058 J	0.069 J
Cobalt	0.032 UJ	0.045 J	0.041 UJ	0.037 UJ	0.045 J	0.048 UJ	0.047 UJ	0.046 UJ
Copper	0.62	0.38	0.56	0.31	0.42	0.17	0.14	0.16
Iron	8 UJ	12.9 J	12.1 J	8.5 UJ	10.4 J	4 J	3.1 UJ	2.8 UJ
Lead	0.069 U	0.077 UJ	0.066 UJ	0.056 UJ	0.13 UJ	0.072 J	0.07 UJ	0.069 UJ
Mercury	0.058 UJ	0.039 J	0.04 J	0.056 J	0.023 J	0.15 J	0.15 J	0.13
Potassium	3800 J	3560 J	3350 J	3680 J	3360 J	3490 J	3480 J	3690 J
Selenium	0.39 J	0.39 J	0.27 J	0.33 J	0.36 J	0.71 J	0.69 J	0.67 J
Silver	0.06 U	0.035 UJ	0.033 UJ	0.03 UJ	0.036 UJ	0.038 U	0.037 U	0.037 U
Zinc	6.9 U	6.3	6.6	5.7	7.6	7.2	6	5.5
PERCENT LIPIDS	0.6	0.3	0.3	0.6	0.6	0.3	0.4	0.3
% MOISTURE	83.8	81.1	82.4	78.9	81.8	80.2	80	78.9

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TABLE 2-201
LARGE FISH FILLET TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-14-F	LF-LK-20-F	LF-LK-21-F	LF-LK-22-F	LF-LK-23-F	LF-LK-24-F	LF-LK-25-F	LF-LK-36-F
Reach	4	6	6	6	6	6	6	4
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	brown bullhead	largemouth bass
SVOCs (ug/Kg)								
Diethylphthalate	410 J	1100 U	1100 U	1100 U	1100 U	1100 U	1100 U	2200 U
PCB/Pesticides (ug/Kg)								
4,4'-DDD	4.7	8.9 J	27	10 J	6.2 J	20 J	4	2.3 J
4,4'-DDE	11	27 J	83	27 J	19 J	51 J	6.1	13
4,4'-DDT	0.94 J	4.9 U	6.7 J	1.1 J	1.5 J	4.3 J	1.1 U	1.7 J
Aldrin	0.37 J	2.5 U	5.1 U	0.53 J	1 U	2.5 U	0.55 U	1.5 U
alpha-Chlordane	3	4.2 J	11 U	4.85 J	3.5 J	11 J	3.6	1.3 J
Aroclor-1248	5 U	25 U	50 U	5 U	9.9 U	25 U	7.9	15 U
Aroclor-1254	28	64 J	180	50 J	31 J	120 J	15	35
Aroclor-1260	28	44 J	110	39.5 J	26 J	66 J	25	38
beta-BHC	0.51 U	2.5 U	5.1 U	0.51 U	1 U	2.5 U	0.55 U	1.5 U
delta-BHC	0.51 U	2.5 U	5.1 U	0.51 U	1 U	2.5 U	0.55 U	1.5 U
Dieldrin	1.4	4.9 U	9.8 U	1.615 J	2 U	2.3 J	1.1 U	3 U
Endosulfan I	0.51 U	2.5 U	5.1 U	0.51 U	1 U	2.5 U	0.38 J	1.5 U
Endosulfan II	0.98 U	4.9 U	9.8 U	1 U	2 U	3.1 U	1.1 U	3 U
Endosulfan sulfate	0.98 U	4.9 U	9.8 U	0.8 J	2 U	4.9 U	1.1 U	3 U
Endrin	1.9	5.1 J	13 U	2.2 J	2.5 J	9.8 J	1.1 U	2.8 J
Endrin aldehyde	0.79 J	4.9 U	9.8 U	0.85 J	2 U	4.9 U	1.1 U	1 J
Endrin ketone	0.98 U	4.9 U	9.8 U	0.98 U	2 U	4.9 U	0.61 J	3 U
gamma-Chlordane	1.1	1.4 J	3.5 J	1.65 J	1.2 J	3.6 J	2.5	1.5 U
Heptachlor	0.51 U	2.5 U	5.1 U	0.41 J	1 U	2.5 U	0.55 U	1.5 U
Heptachlor epoxide	0.51 U	2.5 U	5.1 U	0.51 U	1 U	2.5 U	0.53 J	1.5 U
Metals (mg/Kg)								
Aluminum	1.3 UJ	0.74 UJ	0.87 J	0.71 UJ	1.1 UJ	1.2 UJ	2.6 UJ	1.9 UJ
Antimony	0.11 U	0.077 U	0.097 U	0.089 U	0.1 U	0.1 U	0.1 U	0.1 U
Arsenic	0.1 U	0.074 U	0.093 U	0.085 U	0.097 U	0.096 U	0.17	0.095 U
Cadmium	0.015	0.014	0.015	0.012 U	0.015	0.016	0.023	0.015
Chromium	0.07 J	0.14 J	0.07 UJ	0.053 J	0.065 J	0.081 J	0.097 J	0.058 J
Cobalt	0.049 UJ	0.035 UJ	0.044 UJ	0.041 UJ	0.046 UJ	0.046 UJ	0.054 J	0.045 J
Copper	0.16	0.13	0.17	.14	0.12	0.13	0.8	0.17
Iron	3.8 UJ	4.8 U	3.7 UJ	2.8 U	3.5 U	3.4 U	43.7 J	4.1 UJ
Lead	0.073 UJ	0.053 U	0.066 U	0.061 U	0.076 J	0.068 U	2.3 J	0.068 UJ
Mercury	0.14 J	0.19	0.2 J	.19	0.15	0.13	0.018	0.26 J
Potassium	3370 J	3430	3290 J	3280	3570	3340	4060 J	3570 J
Selenium	0.84 J	0.56 J	0.53 J	0.625 J	0.58 J	0.65 J	0.45 J	0.74 J
Silver	0.039 U	0.028 U	0.035 UJ	0.033 U	0.037 U	0.037 U	0.037 UJ	0.036 U
Zinc	5.4	5.6	5 J	5.45	6.2	5.5	6.9	7.4
PERCENT LIPIDS	0.6	0.5	0.8	.75	0.4	0.9	0.5	0.3
% MOISTURE	79.1	79.8	79.8	79.05	79.2	78.4	81.6	78.7

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TABLE 2-201
LARGE FISH FILLET TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-RV-01-F	LF-RV-02-F	LF-RV-03-F	LF-RV-04-F	LF-RV-05-F	LF-RV-06-F	LF-RV-10-F	LF-RV-13-F
Reach	3	3	3	3	5	5	5	5
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	white sucker	largemouth bass
SVOCs (ug/Kg)								
Diethylphthalate	550 U	660 U	550 U	NA	1300 U	1300 U	1100 U	1100 U
PCB/Pesticides (ug/Kg)								
4,4'-DDD	2.6 U	2.1	8.8	2.4 J	2.1 J	3.4 J	20.5	6.3 U
4,4'-DDE	26	7.4	15	4.9 J	17 J	15 J	120	24 U
4,4'-DDT	3.2 J	0.98 U	5 U	R	2 U	2 U	18.5	3.5
Aldrin	1 U	0.51 U	2.6 U	R	1 U	1 U	0.53 J	1.5 U
alpha-Chlordane	2 J	1.3 J	4.3 J	1.9 J	1.5 J	1.9 J	3.1 U	3.2 U
Aroclor-1248	10 U	5 U	25 U	R	9.9 U	10 U	10 U	15 U
Aroclor-1254	10 U	13 J	36 J	9.6 J	31 J	32 J	107 J	55
Aroclor-1260	110	35	45	14 J	37 J	26 J	315	41
beta-BHC	1 U	0.51 U	2.6 U	R	1 U	1 U	1 U	1.5 U
delta-BHC	1 U	0.51 U	2.6 U	R	1 U	1 U	1 U	1.5 U
Dieldrin	1.3 J	0.77 J	2.9 J	1.3 J	0.93 J	0.92 J	2 U	1.5 J
Endosulfan I	1 U	0.51 U	2.6 U	R	1 U	1 U	1 U	1.5 U
Endosulfan II	2.6 J	0.98 U	5 U	R	2 U	2 U	8.7 U	3 U
Endosulfan sulfate	2 U	0.98 U	5 U	R	1.2 J	2 U	1.8 J	3 U
Endrin	2.4 J	0.98 U	5 U	R	3.4 J	2.4 J	7.4 U	6 U
Endrin aldehyde	2.7 J	0.98 U	5 U	R	2 U	2 U	8.9	1.8 J
Endrin ketone	2 U	0.98 U	5 U	R	2 U	2 U	2 U	3 U
gamma-Chlordane	0.76 J	0.78	2.5 J	0.95 J	0.56 J	0.81 J	1.25	1 J
Heptachlor	1 U	0.51 U	2.6 U	R	1 U	1 U	1 U	1.5 U
Heptachlor epoxide	1 U	0.47 J	1.7 J	0.58 J	1 U	1 U	1 U	1.5 U
Metals (mg/Kg)								
Aluminum	0.52 UJ	1.5 UJ	2.3 UJ	0.96 UJ	2 J	1.6 J	1.23 J	1.9 J
Antimony	0.1 U	0.092	0.089 U	0.089 U	0.1 U	0.14	0.089 U	0.11 U
Arsenic	0.089 UJ	0.071 U	0.085 U	0.11 UJ	0.13 UJ	0.085 UJ	0.085 U	0.1 U
Cadmium	0.0085 U	0.014	0.012 U	0.012 U	0.014 U	0.012 U	0.012 U	0.014 U
Chromium	0.084 J	0.1 UJ	0.087 UJ	0.088 UJ	0.1 J	0.094 J	0.076 UJ	0.062 UJ
Cobalt	0.034 UJ	0.034 UJ	0.041 J	0.041 UJ	0.047 UJ	0.04 UJ	0.041 UJ	0.048 UJ
Copper	0.27	0.16	0.49	0.17	0.24	0.24 U	0.1175 J	0.18
Iron	2.8 UJ	3.2 U	5.8 U	3.3 U	5.9 UJ	5.2 UJ	4.2 UJ	4.7 UJ
Lead	0.072 U	0.051 UJ	0.062 J	0.061 UJ	0.097 UJ	0.074 UJ	0.061 U	0.072 U
Mercury	0.58 J	0.082 UJ	0.096 UJ	0.089 UJ	0.33 J	0.12 J	0.57 J	0.19 J
Potassium	3660 J	4370	3810	3670	3580 J	3770 J	3005 J	3430 J
Selenium	0.46 J	0.64 J	0.78 J	0.6 J	0.6 J	0.53 J	0.54 J	0.59 J
Silver	0.064 U	0.027 UJ	0.033 UJ	0.033 UJ	0.038 UJ	0.037 J	0.033 UJ	0.039 UJ
Zinc	7.6 U	4.8	6.3	6.7	7.8	7.3	4.95 J	6.3 J
PERCENT LIPIDS	1.1	0.3	0.8	0.4	0.2	0.4	.3	0.3
% MOISTURE	82.2	79.9	78.5	80.3	81.6	79.3	82.5	79.4

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TABLE 2-201
LARGE FISH FILLET TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-RV-14-F	LF-RV-15-F
Reach	5	5
Species	largemouth bass	largemouth bass
SVOCs (ug/Kg)		
Diethylphthalate	1100 U	1100 U
PCB/Pesticides (ug/Kg)		
4,4'-DDD	5.3 U	18
4,4'-DDE	19 U	91
4,4'-DDT	3.2	7.1 J
Aldrin	0.48 J	5.1 U
alpha-Chlordane	2.9 U	8.4 U
Aroclor-1248	10 U	50 U
Aroclor-1254	37	140
Aroclor-1260	35	85
beta-BHC	1 U	5.1 U
delta-BHC	1 U	5.1 U
Dieldrin	1.4 J	9.8 U
Endosulfan I	1 U	5.1 U
Endosulfan II	2 U	9.8 U
Endosulfan sulfate	2 U	9.8 U
Endrin	2 U	13 U
Endrin aldehyde	3.5	9.8 U
Endrin ketone	2 U	9.8 U
gamma-Chlordane	0.81 J	2.6 J
Heptachlor	1 U	5.1 U
Heptachlor epoxide	1 U	5.1 U
Metals (mg/Kg)		
Aluminum	1.8 J	1.1 J
Antimony	0.11 U	0.097 U
Arsenic	0.1 U	0.093 U
Cadmium	0.015 U	0.013 U
Chromium	0.064 UJ	0.069 UJ
Cobalt	0.05 UJ	0.044 UJ
Copper	0.18	0.17
Iron	4 UJ	3.5 UJ
Lead	0.075 U	0.066 U
Mercury	0.18 J	0.1 J
Potassium	3510 J	3210 J
Selenium	0.4 J	0.39 J
Silver	0.04 UJ	0.035 UJ
Zinc	7.9 J	5.3 J
PERCENT LIPIDS	0.4	0.7
% MOISTURE	78.9	81.1

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TABLE 2-202
LARGE FISH OFFAL TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	3	J	11	J	LF-LB-15-O	7 / 13	4.9 - 15	5.6
4,4'-DDE	22		110	J	LF-LB-02-O	12 / 13	17	51
4,4'-DDT	2.9	J	7.3	J	LF-LB-02-O	5 / 13	4.9 - 15	4.5
Aldrin						0 / 13	2.5 - 7.6	2.1
alpha-BHC						0 / 13	2.5 - 7.6	2.1
alpha-Chlordane	1.4	J	4.9	J	LF-LB-06-O	4 / 13	2.5 - 7.6	2.5
Aroclor-1016						0 / 13	25 - 75	20
Aroclor-1221						0 / 13	50 - 150	41
Aroclor-1232						0 / 13	25 - 75	20
Aroclor-1242						0 / 13	25 - 75	20
Aroclor-1248						0 / 13	25 - 75	20
Aroclor-1254						0 / 13	25 - 75	20
Aroclor-1260	33	J	230	J	LF-LB-15-O	12 / 13	50	100
beta-BHC						0 / 13	2.5 - 7.6	2.1
delta-BHC						0 / 13	2.5 - 7.6	2.1
Dieldrin						0 / 13	4.9 - 15	4.1
Endosulfan I						0 / 13	2.5 - 7.6	2.1
Endosulfan II						0 / 13	4.9 - 15	4.1
Endosulfan sulfate						0 / 13	4.9 - 15	4.1
Endrin						0 / 13	4.9 - 15	4.1
Endrin aldehyde	2.9	J	2.9	J	LF-LB-10-O	1 / 13	4.9 - 15	4.1
Endrin ketone						0 / 13	4.9 - 15	4.1
gamma-BHC (lindane)						0 / 13	2.5 - 7.6	2.1
gamma-Chlordane						0 / 13	2.5 - 7.6	2.1
Heptachlor						0 / 13	2.5 - 7.6	2.1
Heptachlor epoxide						0 / 13	2.5 - 7.6	2.1
Methoxychlor						0 / 13	25 - 76	21
Toxaphene						0 / 13	250 - 760	209
Metals - mg/Kg								
Aluminum	4.2	J	24.4	J	LF-LB-15-O	2 / 13	1.2 - 4.5	3.2
Antimony	0.084		0.084		LF-LB-01-O	1 / 12	0.074 - 0.11	0.050
Arsenic						0 / 13	0.071 - 0.1	0.045
Barium						0 / 13	0.65 - 10.1	1.6
Beryllium						0 / 13	0.0067 - 0.013	0.0047
Cadmium	0.014	J	0.04	J	LF-LB-07-O	10 / 13	0.012 - 0.015	0.019
Calcium	22000	J	26600	J	LF-LB-15-O	6 / 13	10900 - 21100	15719
Chromium	0.2	J	0.38	J	LF-LB-01-O	10 / 13	0.38 - 0.54	0.29
Cobalt	0.041	J	0.13	J	LF-LB-01-O	5 / 13	0.034 - 0.049	0.037
Copper	0.32	J	1.1	J	LF-LB-15-O	8 / 13	0.37 - 0.61	0.47
Cyanide						0 / 13	0.41 - 0.57	0.25
Iron	12.4	J	591	J	LF-LB-15-O	8 / 13	14 - 40	70
Lead	1.3	J	1.3	J	LF-LB-15-O	1 / 13	0.051 - 0.2	0.14
Magnesium						0 / 13	351 - 600	254
Manganese	7.6	J	41.6	J	LF-LB-15-O	3 / 13	3.7 - 21.6	10
Mercury	0.091		0.6		LF-LB-09-O	10 / 13	0.015 - 0.057	0.26
Nickel						0 / 13	0.034 - 0.049	0.022
Potassium	2190	J	2800	J	LF-LB-02-O	13 / 13	N/A	2538
Selenium	0.62	J	0.85	J	LF-LB-09-O	13 / 13	N/A	0.72
Silver	0.033	J	0.034	J	LF-LB-09-O	2 / 13	0.031 - 0.039	0.020
Sodium						0 / 13	1370 - 1950	818
Thallium						0 / 13	0.11 - 0.15	0.065
Vanadium						0 / 7	0.045 - 0.58	0.094
Zinc	16.1		23.9	J	LF-LB-05-O	13 / 13	N/A	20
PERCENT LIPIDS	0.5		4.6		LF-LB-03-O	13 / 13	N/A	2.5
% MOISTURE	66.2		77.9		LF-LB-15-O	13 / 13	N/A	71

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-203
LARGE FISH OFFAL TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-01-O	LF-LB-02-O	LF-LB-03-O	LF-LB-04-O	LF-LB-05-O	LF-LB-06-O	LF-LB-07-O	LF-LB-08-O
Reach	7	7	7	7	7	7	7	7
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	4.9 UJ	7.6 J	9.8 U	9.9 U	15 U	8.1 J	3 J	5.6 J
4,4'-DDE	17 UJ	110 J	27	43 J	56 J	100	36	61
4,4'-DDT	4.9 UJ	7.3 J	9.8 U	9.9 U	15 U	6.4 J	2.9 J	4.7 J
alpha-Chlordane	2.5 UJ	4.2 J	5 U	5.1 U	7.6 U	4.9 J	2 J	4 U
Aroclor-1260	33 J	160 J	50 U	55 J	86 J	170	74	110
Endrin aldehyde	4.9 UJ	9.9 U	9.8 U	9.9 U	15 U	9.9 U	5 U	7.8 U
Metals (mg/Kg)								
Aluminum	2.5 UJ	1.2 UJ	4.5 UJ	2.2 UJ	3.4 UJ	1.2 UJ	2.5 UJ	1.7 UJ
Antimony	0.084	0.089 U	0.1 U	0.1 U	0.1 U	0.1 U	0.091 U	0.094 U
Cadmium	0.022 J	0.014 J	0.014 J	0.025	0.02 J	0.019 J	0.04 J	0.027 J
Calcium	22000 J	18100 UJ	23600 J	10900 UJ	19800 UJ	18100 UJ	21100 UJ	17300 UJ
Chromium	0.38 J	0.31 J	0.37 J	0.2 J	0.32 J	0.3 J	0.32 J	0.29 J
Cobalt	0.13 J	0.041 J	0.047 J	0.048 J	0.047 J	0.046 UJ	0.041 UJ	0.043 UJ
Copper	0.52 UJ	0.37 UJ	0.61 UJ	0.44 U	0.47 UJ	0.32 J	0.64 J	0.35 J
Iron	38 UJ	14 UJ	40 UJ	19 UJ	22.9 UJ	12.9 J	33.4 J	12.4 J
Lead	0.057 U	0.061 U	0.07 UJ	0.071 UJ	0.071 UJ	0.069 U	0.062 U	0.064 U
Manganese	7.6 J	3.7 UJ	18.4 UJ	3.9 U	6.5 UJ	4.6 UJ	8.2 UJ	6.1 UJ
Mercury	0.49 J	0.5 J	0.2 J	0.14 J	0.21 J	0.35	0.33	0.36
Potassium	2700 J	2800 J	2710 J	2520 J	2580 J	2490 J	2670 J	2750 J
Selenium	0.8 J	0.64 J	0.62 J	0.69 J	0.68 J	0.64 J	0.69 J	0.72 J
Silver	0.033 J	0.033 UJ	0.037 UJ	0.038 UJ	0.038 UJ	0.037 UJ	0.033 UJ	0.034 UJ
Zinc	22.4 J	22.5 J	21.6 J	16.1	23.9 J	18.1 J	17.4 J	19.3 J
PERCENT LIPIDS	1.7	3	4.6	2.9	3.3	3.8	2.7	2.2
% MOISTURE	71.5	66.2	69.1	71.5	67.8	69.6	69.6	73

US EPA ARCHIVE DOCUMENT

TABLE 2-203
LARGE FISH OFFAL TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-09-O	LF-LB-10-O	LF-LB-14-O	LF-LB-15-O	LF-LB-16-O
Reach	7	7	7	7	7
Species	largemouth bass	largemouth bass	brown bullhead	brown bullhead	brown bullhead
SVOCs (ug/Kg)					
No Detections					
PCB/Pesticides (ug/Kg)					
4,4'-DDD	7.8 U	4 J	5.6 U	11 J	6.7 J
4,4'-DDE	53	40	22	55 J	56 J
4,4'-DDT	7.8 U	3 J	5.6 U	9.8 U	5.2 U
alpha-Chlordane	4 U	2.6 U	2.9 U	5.1 U	1.4 J
Aroclor-1260	140	62	40	230 J	110 J
Endrin aldehyde	7.8 U	2.9 J	5.6 U	9.8 U	5.2 U
Metals (mg/Kg)					
Aluminum	1.7 UJ	2.1 UJ	2.8 UJ	24.4 J	4.2 J
Antimony	0.074 U	R	0.087 U	0.11 U	0.086 U
Cadmium	0.029 J	0.017 J	0.012 UJ	0.015 UJ	0.012 UJ
Calcium	24700 J	13600 UJ	26000 J	26600 J	22000 J
Chromium	0.38 J	0.23 J	0.54 UJ	0.48 UJ	0.38 UJ
Cobalt	0.034 UJ	0.049 UJ	0.04 UJ	0.049 UJ	0.039 UJ
Copper	0.53 J	0.35 J	0.83 J	1.1 J	0.75 J
Iron	20.1 J	17.9 J	66.2 J	591 J	93.5 J
Lead	0.051 U	0.074 U	0.079 UJ	1.3 J	0.2 UJ
Manganese	6.1 UJ	21.6 UJ	29.4 J	41.6 J	17.6 UJ
Mercury	0.6	0.091	0.015 UJ	0.057 UJ	0.017 UJ
Potassium	2360 J	2480 J	2460 J	2290 J	2190 J
Selenium	0.85 J	0.83 J	0.77 J	0.73 J	0.74 J
Silver	0.034 J	0.039 UJ	0.032 UJ	0.039 UJ	0.031 UJ
Zinc	19 J	18.6 J	19.9 J	23.4 J	22 J
PERCENT LIPIDS	0.5	2.2	1.3	1.6	2.2
% MOISTURE	69.5	72.1	75.7	77.9	74.6

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TABLE 2-204
LARGE FISH OFFAL TISSUE DATA SUMMARY - REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	6.2	J	74		LF-RV-03-O	8 / 9	9.8	23
4,4'-DDE	8.9	J	120	J	LF-RV-03-O	9 / 9	N/A	41
4,4'-DDT	1	J	12	J	LF-RV-03-O	4 / 8	2.9 - 9.8	4.4
Aldrin	0.64	J	1.2	J	LF-RV-03-O	2 / 8	1 - 5.1	1.7
alpha-BHC						0 / 8	0.51 - 5.1	1.6
alpha-Chlordane	3.9	J	55	J	LF-LK-08-O	9 / 9	N/A	18
Aroclor-1016						0 / 8	5 - 50	16
Aroclor-1221						0 / 8	10 - 99	32
Aroclor-1232						0 / 8	5 - 50	16
Aroclor-1242						0 / 8	5 - 50	16
Aroclor-1248	73	J	73	J	LF-RV-03-O	1 / 8	5 - 50	23
Aroclor-1254	29	J	250	J	LF-RV-03-O	8 / 9	50	80
Aroclor-1260	37	J	350		LF-RV-03-O	9 / 9	N/A	142
beta-BHC						0 / 8	0.51 - 5.1	1.6
delta-BHC	0.56	J	1.1	J	LF-LK-10-O	3 / 8	2.5 - 5.1	1.8
Dieldrin	2.3	J	23		LF-RV-03-O	6 / 9	9.8	7.9
Endosulfan I	4.3	J	4.3	J	LF-RV-03-O	1 / 8	0.51 - 5.1	2.0
Endosulfan II	14	J	14	J	LF-RV-03-O	1 / 8	1 - 9.8	4.6
Endosulfan sulfate	3.9	J	3.9	J	LF-RV-03-O	1 / 8	0.99 - 9.8	3.3
Endrin	1.6	J	7.9	J	LF-LK-08-O	6 / 8	9.8	4.3
Endrin aldehyde	1.5	J	8.5	J	LF-LK-08-O	5 / 8	4.9 - 9.8	4.7
Endrin ketone	0.27	J	6.4	J	LF-RV-03-O	2 / 8	2 - 9.8	3.6
gamma-BHC (lindane)						0 / 8	0.51 - 5.1	1.6
gamma-Chlordane	3.8	J	36	J	LF-LK-08-O	8 / 9	5.1	11
Heptachlor						0 / 8	0.51 - 5.1	1.6
Heptachlor epoxide	0.43	J	11	J	LF-RV-03-O	5 / 9	5.1	3.2
Methoxychlor						0 / 8	5.1 - 51	16
Toxaphene						0 / 8	51 - 510	162
Metals - mg/Kg								
Aluminum	2.9	J	130	J	LF-LK-07-O	8 / 9	2.5	39
Antimony	0.14		0.2		LF-LK-09-O	3 / 7	0.1 - 0.11	0.10
Arsenic	1.4	J	2.5	J	LF-LK-07-O	3 / 9	0.099 - 0.61	0.71
Barium	1.1		1.7		LF-RV-04-O	4 / 9	1.3 - 38.6	3.8
Beryllium						0 / 9	0.0094 - 0.014	0.0058
Cadmium	0.024	J	0.12		LF-LK-07-O	9 / 9	N/A	0.058
Calcium	25500		35000		LF-RV-03-O	4 / 9	4220 - 14600	16103
Chromium	0.27	J	2.6	J	LF-LK-07-O	9 / 9	N/A	1.1
Cobalt	0.048	J	0.23	J	LF-LK-07-O	8 / 9	0.044	0.11
Copper	1	J	4.5	J	LF-RV-04-O	9 / 9	N/A	2.5
Cyanide						0 / 9	0.47 - 0.59	0.27
Iron	36.3		458	J	LF-LK-07-O	9 / 9	N/A	187
Lead	0.57	J	3.2	J	LF-LK-07-O	4 / 9	0.07 - 0.26	0.94
Magnesium						0 / 9	238 - 737	239
Manganese						0 / 9	3.1 - 9.3	3.2
Mercury	0.028	J	0.047	J	LF-LK-07-O	5 / 9	0.033 - 0.34	0.053
Nickel						0 / 9	0.044 - 0.32	0.063
Potassium	2120	J	2570	J	LF-LK-07-O	9 / 9	N/A	2427
Selenium	0.44	J	0.72	J	LF-RV-03-O	9 / 9	N/A	0.60
Silver	0.11	J	0.22	J	LF-LK-09-O	2 / 9	0.036 - 0.044	0.052
Sodium						0 / 9	1250 - 2020	809
Thallium						0 / 9	0.13 - 0.15	0.073
Vanadium						0 / 5	0.055 - 0.79	0.22
Zinc	21.2		37.6	J	LF-LK-10-O	9 / 9	N/A	30
PERCENT LIPIDS	0.6		5.3		LF-RV-03-O	9 / 9	N/A	1.6
% MOISTURE	68		77		LF-LK-06-O	9 / 9	N/A	73

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-205
LARGE FISH OFFAL TISSUE DATA SUMMARY - REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	27		60		LF-LK-11-O	5 / 5	N/A	37
4,4'-DDE	74		200		LF-LK-36-O	5 / 5	N/A	120
4,4'-DDT	7	J	21		LF-LK-36-O	5 / 5	N/A	12.8
Aldrin	1.5		3		LF-LK-11-O	4 / 5	5	2.3
alpha-BHC						0 / 5	1 - 5	1.1
alpha-Chlordane	12		31		LF-LK-11-O	5 / 5	N/A	19
Aroclor-1016						0 / 5	9.9 - 50	10
Aroclor-1221						0 / 5	20 - 99	21
Aroclor-1232						0 / 5	9.9 - 50	10
Aroclor-1242						0 / 5	9.9 - 50	10
Aroclor-1248						0 / 5	9.9 - 50	10
Aroclor-1254	190		370		LF-LK-36-O	5 / 5	N/A	252
Aroclor-1260	190		490		LF-LK-36-O	5 / 5	N/A	294
beta-BHC	0.58	J	0.6	J	LF-LK-11-O	2 / 5	1 - 5	1.1
delta-BHC						0 / 5	1 - 5	1.1
Dieldrin	5.3		12		LF-LK-11-O	5 / 5	N/A	8.5
Endosulfan I	1.8		1.8		LF-LK-11-O	1 / 5	1 - 5	1.3
Endosulfan II						0 / 5	2 - 13	4.1
Endosulfan sulfate	1.4	J	1.9	J	LF-LK-11-O	2 / 5	2 - 9.8	2.3
Endrin	13		32		LF-LK-36-O	5 / 5	N/A	19.2
Endrin aldehyde	5.5	J	13		LF-LK-36-O	5 / 5	N/A	8.2
Endrin ketone	1.1	J	1.1	J	LF-LK-12-O	1 / 5	2 - 9.8	2.1
gamma-BHC (lindane)						0 / 5	1 - 5	1.1
gamma-Chlordane	4.8		12		LF-LK-11-O	5 / 5	N/A	7.4
Heptachlor						0 / 5	1 - 5	1.1
Heptachlor epoxide	0.87	J	1.8		LF-LK-11-O	4 / 5	5	1.6
Methoxychlor						0 / 5	10 - 50	11
Toxaphene						0 / 5	100 - 500	105
Metals - mg/Kg								
Aluminum	3.4	J	3.4	J	LF-LK-14-O	1 / 5	1.2 - 3.1	1.5
Antimony						0 / 5	0.083 - 0.11	0.049
Arsenic						0 / 5	0.079 - 0.1	0.045
Barium						0 / 5	0.66 - 1.6	0.47
Beryllium						0 / 5	0.01 - 0.013	0.0058
Cadmium	0.018	J	0.026	J	LF-LK-13-O	5 / 5	N/A	0.021
Calcium	20100	J	34500	J	LF-LK-13-O	5 / 5	N/A	27020
Chromium	0.31	J	0.42	J	LF-LK-13-O	5 / 5	N/A	0.35
Cobalt						0 / 5	0.038 - 0.05	0.022
Copper	0.58		1.9		LF-LK-14-O	5 / 5	N/A	1.1
Cyanide	0.47	J	0.47	J	LF-LK-36-O	1 / 5	0.41 - 0.48	0.27
Iron	30	J	43	J	LF-LK-14-O	5 / 5	N/A	34
Lead						0 / 5	0.056 - 0.075	0.033
Magnesium						0 / 5	483 - 735	305
Manganese						0 / 5	2.1 - 5.3	2.1
Mercury	0.05	J	0.13	J	LF-LK-36-O	5 / 5	N/A	0.074
Nickel						0 / 5	0.038 - 0.05	0.022
Potassium	2470	J	2850	J	LF-LK-13-O	5 / 5	N/A	2682
Selenium	0.78	J	1.1	J	LF-LK-13-O	5 / 5	N/A	0.91
Silver						0 / 5	0.03 - 0.04	0.018
Sodium						0 / 5	1700 - 2120	950
Thallium						0 / 5	0.11 - 0.15	0.066
Vanadium						0 / 3	0.048 - 0.055	0.026
Zinc	23.5	J	28.5	J	LF-LK-11-O	5 / 5	N/A	26
PERCENT LIPIDS	1.7		2.4		LF-LK-11-O	5 / 5	N/A	2.0
% MOISTURE	65.6		80.8		LF-LK-14-O	5 / 5	N/A	72

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-206
LARGE FISH OFFAL TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	17	J	140		LF-RV-13-O	6 / 6	N/A	67
4,4'-DDE	110	J	540		LF-RV-15-O	6 / 6	N/A	292
4,4'-DDT	1.6	J	60		LF-RV-13-O	6 / 6	N/A	27
Aldrin	0.7	J	3.7		LF-RV-15-O	5 / 6	2.5	1.8
alpha-BHC						0 / 6	1 - 2.5	1.0
alpha-Chlordane	8.6	J	58		LF-RV-13-O	5 / 6	6.9	26
Aroclor-1016						0 / 6	9.9 - 25	10
Aroclor-1221						0 / 6	20 - 50	21
Aroclor-1232						0 / 6	9.9 - 25	10
Aroclor-1242						0 / 6	9.9 - 25	10
Aroclor-1248						0 / 6	9.9 - 25	10
Aroclor-1254	91	J	770		LF-RV-13-O	6 / 6	N/A	365
Aroclor-1260	220	J	720		LF-RV-10-O	6 / 6	N/A	438
beta-BHC	0.74	J	0.74	J	LF-RV-05-O	1 / 6	1.5 - 2.5	1.1
delta-BHC						0 / 6	1 - 2.5	1.0
Dieldrin	3.6	J	25		LF-RV-13-O	5 / 6	4.9	10
Endosulfan I						0 / 6	1 - 5.6	1.5
Endosulfan II	4.8	J	7.7	J	LF-RV-06-O	2 / 6	11 - 32	8.6
Endosulfan sulfate	1.5	J	5.4		LF-RV-10-O	4 / 6	4.9	3.1
Endrin	5.1	J	49		LF-RV-15-O	4 / 6	10 - 16	19
Endrin aldehyde	5.8	J	24		LF-RV-13-O	6 / 6	N/A	14
Endrin ketone						0 / 6	2 - 4.9	2.0
gamma-BHC (lindane)						0 / 6	1 - 2.5	1.0
gamma-Chlordane	2.6		18		LF-RV-13-O	6 / 6	N/A	8.6
Heptachlor						0 / 6	1 - 2.5	1.0
Heptachlor epoxide	0.64	J	1.7		LF-RV-14-O	3 / 6	2.5	1.2
Methoxychlor						0 / 6	10 - 25	10
Toxaphene						0 / 6	100 - 250	104
Metals - mg/Kg								
Aluminum	1.3	J	3.7	J	LF-RV-05-O	6 / 6	N/A	2.1
Antimony						0 / 6	0.091 - 0.11	0.053
Arsenic	0.11	J	0.11	J	LF-RV-06-O	1 / 6	0.086 - 0.15	0.063
Barium						0 / 6	0.47 - 1.4	0.43
Beryllium						0 / 6	0.011 - 0.014	0.0064
Cadmium	0.016	J	0.053	J	LF-RV-05-O	4 / 6	0.012 - 0.015	0.025
Calcium	21700	J	67100	J	LF-RV-10-O	5 / 6	13000	30100
Chromium	0.24	J	0.8	J	LF-RV-05-O	6 / 6	N/A	0.53
Cobalt	0.073	J	0.073	J	LF-RV-05-O	1 / 6	0.041 - 0.05	0.032
Copper	0.45	J	2.1	J	LF-RV-05-O	6 / 6	N/A	1.1
Cyanide						0 / 6	0.41 - 0.61	0.24
Iron	17.6	J	145	J	LF-RV-05-O	6 / 6	N/A	43
Lead						0 / 6	0.062 - 0.37	0.060
Magnesium	363	J	363	J	LF-RV-06-O	1 / 6	520 - 1130	354
Manganese						0 / 6	2.6 - 7.6	2.6
Mercury	0.059	J	0.33	J	LF-RV-10-O	6 / 6	N/A	0.13
Nickel	0.83	J	0.83	J	LF-RV-05-O	1 / 6	0.041 - 0.05	0.16
Potassium	2400	J	2870	J	LF-RV-15-O	6 / 6	N/A	2600
Selenium	0.6	J	0.74	J	LF-RV-06-O	6 / 6	N/A	0.65
Silver	0.033	J	0.033	J	LF-RV-15-O	1 / 6	0.037 - 0.04	0.022
Sodium						0 / 6	1500 - 3420	986
Thallium						0 / 6	0.12 - 0.15	0.071
Vanadium						0 / 2	0.051 - 0.054	0.026
Zinc	23.4	J	30.9	J	LF-RV-05-O	6 / 6	N/A	27
PERCENT LIPIDS	0.5		3.4		LF-RV-13-O	6 / 6	N/A	2.0
% MOISTURE	69.2		72.2		LF-RV-05-O	6 / 6	N/A	71

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-207
LARGE FISH OFFAL TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	23		150	J	LF-RV-24-O	6 / 6	N/A	105
4,4'-DDE	33		420	J	LF-RV-21-O	6 / 6	N/A	299
4,4'-DDT	21	J	34	J	LF-RV-21-O	5 / 6	3.9	22
Aldrin	3.7	J	5.3	J	LF-RV-23-O	5 / 6	2	3.8
alpha-BHC						0 / 6	2 - 2.6	1.2
alpha-Chlordane	19		81	J	LF-RV-24-O	6 / 6	N/A	50
Aroclor-1016						0 / 6	20 - 25	12
Aroclor-1221						0 / 6	40 - 50	24
Aroclor-1232						0 / 6	20 - 25	12
Aroclor-1242						0 / 6	20 - 25	12
Aroclor-1248	33		33		LF-LK-25-O	1 / 6	25	16
Aroclor-1254	80		770	J	LF-RV-24-O	6 / 6	N/A	492
Aroclor-1260	140		490	J	LF-RV-21-O	6 / 6	N/A	388
beta-BHC	1.4	J	2.3	J	LF-LK-22-O	5 / 6	2	1.7
delta-BHC						0 / 6	2 - 2.6	1.2
Dieldrin	2	J	18	J	LF-LK-22-O	6 / 6	N/A	14
Endosulfan I	2	J	6.4	J	LF-RV-24-O	6 / 6	N/A	4.8
Endosulfan II	12	J	21	J	LF-RV-24-O	5 / 6	3.9	14
Endosulfan sulfate	4	J	8.9	J	LF-LK-22-O	4 / 6	3.9 - 5	4.6
Endrin	32	J	66	J	LF-RV-24-O	5 / 6	3.9	40
Endrin aldehyde	10	J	17	J	LF-RV-21-O	5 / 6	3.9	12
Endrin ketone						0 / 6	3.9 - 5	2.4
gamma-BHC (lindane)						0 / 6	2 - 2.6	1.2
gamma-Chlordane	14		26	J	LF-RV-24-O	6 / 6	N/A	17
Heptachlor						0 / 6	2 - 2.6	1.2
Heptachlor epoxide	2.5	J	2.5	J	LF-LK-25-O	1 / 6	2.5 - 2.6	1.5
Methoxychlor						0 / 6	20 - 26	12
Toxaphene						0 / 6	200 - 260	122
Metals - mg/Kg								
Aluminum						0 / 6	0.54 - 9.8	1.3
Antimony						0 / 6	0.086 - 0.1	0.047
Arsenic	0.096		0.096		LF-LK-25-O	1 / 6	0.082 - 0.096	0.053
Barium						0 / 6	0.32 - 2.3	0.42
Beryllium						0 / 6	0.0089 - 0.012	0.0056
Cadmium	0.014	J	0.024	J	LF-RV-20-O	5 / 5	N/A	0.018
Calcium	19700		35600		LF-RV-21-O	5 / 6	16000	24500
Chromium	0.24	J	0.43	J	LF-RV-21-O	6 / 6	N/A	0.35
Cobalt						0 / 6	0.039 - 0.046	0.022
Copper	0.4	J	0.71	J	LF-LK-25-O	6 / 6	N/A	0.53
Cyanide						0 / 6	0.43 - 0.56	0.26
Iron	17.8		181	J	LF-LK-25-O	6 / 6	N/A	48
Lead	0.066	J	0.18	J	LF-RV-21-O	5 / 6	0.52	0.13
Magnesium						0 / 6	458 - 675	276
Manganese						0 / 6	2.8 - 13.2	2.8
Mercury	0.0092		0.13		LF-LK-22-O	6 / 6	N/A	0.093
Nickel						0 / 6	0.039 - 0.046	0.022
Potassium	2550		2820		LF-RV-20-O	6 / 6	N/A	2625
Selenium	0.52	J	0.96	J	LF-RV-24-O	6 / 6	N/A	0.71
Silver	0.04		0.04		LF-RV-20-O	1 / 6	0.031 - 0.037	0.021
Sodium						0 / 6	1530 - 1790	821
Thallium						0 / 6	0.12 - 0.14	0.065
Vanadium						0 / 5	0.043 - 0.05	0.023
Zinc	17.3	J	25.3	J	LF-RV-24-O	6 / 6	N/A	21
PERCENT LIPIDS	2		6.5		LF-LK-22-O	6 / 6	N/A	4.4
% MOISTURE	62.5		72.6		LF-LK-25-O	6 / 6	N/A	67

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-208
LARGE FISH OFFAL TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	6.2	J	150	J	LF-RV-24-O	25 / 26	9.8	55
4,4'-DDE	8.9	J	540		LF-RV-15-O	26 / 26	N/A	173
4,4'-DDT	1	J	60		LF-RV-13-O	20 / 25	2.9 - 9.8	16
Aldrin	0.64	J	5.3	J	LF-RV-23-O	16 / 25	1 - 5.1	2.3
alpha-BHC						0 / 25	0.51 - 5.1	1.3
alpha-Chlordane	3.9	J	81	J	LF-RV-24-O	25 / 26	6.9	27
Aroclor-1016						0 / 25	5 - 50	13
Aroclor-1221						0 / 25	10 - 99	25
Aroclor-1232						0 / 25	5 - 50	13
Aroclor-1242						0 / 25	5 - 50	13
Aroclor-1248	33		73	J	LF-RV-03-O	2 / 25	5 - 50	16
Aroclor-1254	29	J	770	J	LF-RV-13-O	25 / 26	50	274
Aroclor-1260	37	J	720		LF-RV-10-O	26 / 26	N/A	297
beta-BHC	0.58	J	2.3	J	LF-LK-22-O	8 / 25	0.51 - 5.1	1.4
delta-BHC	0.56	J	1.1	J	LF-LK-10-O	3 / 25	1 - 5.1	1.3
Dieldrin	2	J	25		LF-RV-13-O	22 / 26	4.9 - 9.8	9.9
Endosulfan I	1.8		6.4	J	LF-RV-24-O	8 / 25	0.51 - 5.6	2.4
Endosulfan II	4.8	J	21	J	LF-RV-24-O	8 / 25	1 - 32	7.8
Endosulfan sulfate	1.4	J	8.9	J	LF-LK-22-O	11 / 25	0.99 - 9.8	3.4
Endrin	1.6	J	66	J	LF-RV-24-O	20 / 25	3.9 - 16	19
Endrin aldehyde	1.5	J	24		LF-RV-13-O	21 / 25	3.9 - 9.8	9.4
Endrin ketone	0.27	J	6.4	J	LF-RV-03-O	3 / 25	2 - 9.8	2.6
gamma-BHC (lindane)						0 / 25	0.51 - 5.1	1.3
gamma-Chlordane	2.6		36	J	LF-LK-08-O	25 / 26	5.1	11
Heptachlor						0 / 25	0.51 - 5.1	1.3
Heptachlor epoxide	0.43	J	11	J	LF-RV-03-O	13 / 26	2.5 - 5.1	2.0
Methoxychlor						0 / 25	5.1 - 51	13
Toxaphene						0 / 25	51 - 510	127
Metals - mg/Kg								
Aluminum	1.3	J	130	J	LF-LK-07-O	15 / 26	0.54 - 9.8	15
Antimony	0.14		0.2		LF-LK-09-O	3 / 24	0.083 - 0.11	0.064
Arsenic	0.096		2.5	J	LF-LK-07-O	5 / 26	0.079 - 0.61	0.28
Barium	1.1		1.7		LF-RV-04-O	4 / 26	0.32 - 38.6	1.6
Beryllium						0 / 26	0.0089 - 0.014	0.0059
Cadmium	0.014	J	0.12		LF-LK-07-O	23 / 25	0.012 - 0.015	0.035
Calcium	19700		67100	J	LF-RV-10-O	19 / 26	4220 - 16000	23370
Chromium	0.24	J	2.6	J	LF-LK-07-O	26 / 26	N/A	0.64
Cobalt	0.048	J	0.23	J	LF-LK-07-O	9 / 26	0.038 - 0.05	0.053
Copper	0.4	J	4.5	J	LF-RV-04-O	26 / 26	N/A	1.4
Cyanide	0.47	J	0.47	J	LF-LK-36-O	1 / 26	0.41 - 0.61	0.26
Iron	17.6	J	458	J	LF-LK-07-O	26 / 26	N/A	92
Lead	0.066	J	3.2	J	LF-LK-07-O	9 / 26	0.056 - 0.52	0.37
Magnesium	363	J	363	J	LF-RV-06-O	1 / 26	238 - 1130	287
Manganese						0 / 26	2.1 - 13.2	2.8
Mercury	0.0092		0.33	J	LF-RV-10-O	22 / 26	0.033 - 0.34	0.085
Nickel	0.83	J	0.83	J	LF-RV-05-O	1 / 26	0.038 - 0.32	0.067
Potassium	2120	J	2870	J	LF-RV-15-O	26 / 26	N/A	2562
Selenium	0.44	J	1.1	J	LF-LK-13-O	26 / 26	N/A	0.70
Silver	0.033	J	0.22	J	LF-LK-09-O	4 / 26	0.03 - 0.044	0.031
Sodium						0 / 26	1250 - 3420	880
Thallium						0 / 26	0.11 - 0.15	0.069
Vanadium						0 / 15	0.043 - 0.79	0.091
Zinc	17.3	J	37.6	J	LF-LK-10-O	26 / 26	N/A	27
PERCENT LIPIDS	0.5		6.5		LF-LK-22-O	26 / 26	N/A	2.4
% MOISTURE	62.5		80.8		LF-LK-14-O	26 / 26	N/A	71

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-209
LARGE FISH OFFAL TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-06-O	LF-LK-07-O	LF-LK-08-O	LF-LK-09-O	LF-LK-10-O	LF-LK-11-O	LF-LK-12-O	LF-LK-13-O
Reach	3	3	3	3	3	4	4	4
Species	brown bullhead	brown bullhead	brown bullhead	brown bullhead	brown bullhead	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	15 J	6.2 J	49 J	8.2 J	15 J	60	27	28
4,4'-DDE	24 J	10 J	49 J	8.9 J	22 J	120	85	120
4,4'-DDT	9.8 U	1.3 J	5 J	1 J	2.9 U	11	12	13
Aldrin	5.1 U	0.64 J	5.1 U	1 U	1.5 U	3	1.7	1.5
alpha-Chlordane	16 J	6.1 J	55 J	8.4 J	14 J	31	15	12
Aroclor-1248	50 U	5 UJ	50 U	9.9 U	15 U	10 U	9.9 U	9.9 U
Aroclor-1254	71 J	29 J	130 J	34 J	58 J	290	190	210
Aroclor-1260	110 J	55 J	160 J	37 J	78 J	280	240	270
beta-BHC	5.1 U	0.51 UJ	5.1 U	1 U	1.5 U	0.6 J	0.58 J	1 U
delta-BHC	5.1 U	0.56 J	5.1 U	0.89 J	1.1 J	1 U	1 U	1 U
Dieldrin	9.8 U	2.3 J	13 J	3.3 J	4.9 J	12	8.7	5.3
Endosulfan I	5.1 U	0.51 UJ	5.1 U	1 U	1.5 U	1.8	1 U	1 U
Endosulfan II	9.8 U	1 UJ	9.8 U	2 U	2.9 U	9.1 U	6.7 U	2 U
Endosulfan sulfate	9.8 U	0.99 UJ	9.8 U	2 U	2.9 U	1.9 J	1.4 J	2 U
Endrin	4.8 J	1.8 J	7.9 J	1.6 J	3.4 J	19	15	17
Endrin aldehyde	9.8 U	4.9 J	8.5 J	1.5 J	4.8 J	7.7	7.2	7.7
Endrin ketone	9.8 U	0.27 J	9.8 U	2 U	2.9 U	2 U	1.1 J	2 U
gamma-Chlordane	9.1 J	4.1 J	36 J	5.1 J	8.6 J	12	6	4.8
Heptachlor epoxide	5.1 U	0.43 J	5.1 U	0.57 J	1 J	1.8	1.4	0.87 J
Metals (mg/Kg)								
Aluminum	2.9 J	130 J	106 J	21.7 J	72.2 J	2.5 UJ	1.3 UJ	1.2 UJ
Antimony	R	0.14	0.15	0.2	0.11 U	0.097 U	0.085 U	0.11 U
Arsenic	0.25 UJ	2.5 J	1.4 J	0.61 UJ	1.8 J	0.093 U	0.081 U	0.1 U
Barium	3.2 U	2.6 U	10.8 U	1.3 U	38.6 U	0.78 UJ	0.66 UJ	1 UJ
Cadmium	0.044 J	0.12	0.12	0.055	0.06 J	0.02 J	0.021 J	0.026 J
Calcium	14300 UJ	6440 UJ	11700 UJ	4220 UJ	14600 UJ	27600 J	28300 J	34500 J
Chromium	0.27 J	2.6 J	2.1 J	0.49 J	1.7 J	0.35 J	0.36 J	0.42 J
Cobalt	0.044 UJ	0.23 J	0.18 J	0.1 J	0.2 J	0.044 UJ	0.038 UJ	0.049 UJ
Copper	1 J	3.6	3.4	1.2	3 J	0.84	0.58	0.84
Cyanide	0.51 UJ	0.55 UJ	0.52 UJ	0.59 UJ	0.57 UJ	0.41 UJ	0.43 UJ	0.47 UJ
Iron	107 J	458 J	413 J	267 J	284 J	31.6 J	31.8 J	30 J
Lead	0.26 UJ	3.2 J	2.5 J	0.57 J	1.9 J	0.066 UJ	0.058 UJ	0.074 UJ
Magnesium	384 UJ	311 UJ	353 UJ	238 UJ	424 UJ	582 UJ	660 UJ	735 UJ
Mercury	0.045 J	0.047 J	0.029 J	0.039 J	0.028 J	0.064 J	0.064 J	0.061 J
Nickel	0.044 UJ	0.32 UJ	0.32 UJ	0.072 UJ	0.18 UJ	0.044 UJ	0.038 UJ	0.049 UJ
Potassium	2470 J	2570 J	2120 J	2310 J	2510 J	2650 J	2800 J	2850 J
Selenium	0.44 J	0.69 J	0.45 J	0.57 J	0.67 J	0.91 J	0.83 J	1.1 J
Silver	0.036 UJ	0.039 UJ	0.04 UJ	0.22 J	0.11 J	0.035 U	0.031 U	0.039 U
Zinc	22.7 J	34.7	37.5	21.2	37.6 J	28.5 J	25.8 J	27.9 J
PERCENT LIPIDS	0.8	0.8	1.7	1	1.4	2.4	1.8	1.7
% MOISTURE	77	74.5	71.9	74.7	74.7	68.4	70.5	72.7

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TABLE 2-209
LARGE FISH OFFAL TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-14-O	LF-LK-22-O	LF-LK-25-O	LF-LK-36-O	LF-RV-01-O	LF-RV-02-O	LF-RV-03-O	LF-RV-04-O
Reach	4	6	6	4	3	3	3	3
Species	largemouth bass	largemouth bass	brown bullhead	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	32	120 J	23	39	9.8 U	12 J	74	25 J
4,4'-DDE	74	330 J	33	200	43	40 J	120 J	50 J
4,4'-DDT	7 J	23 J	3.9 U	21	9.8 U	9.8 UJ	12 J	R
Aldrin	5 U	3.7 J	2 U	2.8	5.1 U	5.1 UJ	1.2 J	R
alpha-Chlordane	20	50 J	19	15	3.9 J	6.8 J	31 J	18 J
Aroclor-1248	50 U	25 U	33	25 U	50 U	50 UJ	73 J	R
Aroclor-1254	200	450 J	80	370	50 U	53 J	250 J	74 J
Aroclor-1260	190	430 J	140	490	190	160 J	350	140 J
beta-BHC	5 U	2.3 J	2 U	2.5 U	5.1 U	5.1 UJ	2.5 U	R
delta-BHC	5 U	2.5 U	2 U	2.5 U	5.1 U	5.1 UJ	2.5 U	R
Dieldrin	8.1 J	18 J	2 J	8.5	9.8 U	9.8 UJ	23	10 J
Endosulfan I	5 U	5.2 J	2 J	2.5 U	5.1 U	5.1 UJ	4.3 J	R
Endosulfan II	9.8 U	15 J	3.9 U	13 U	9.8 U	9.8 UJ	14 J	R
Endosulfan sulfate	9.8 U	8.9 J	3.9 U	4.9 U	9.8 U	9.8 UJ	3.9 J	R
Endrin	13	38 J	3.9 U	32	9.8 U	9.8 UJ	5 J	R
Endrin aldehyde	5.5 J	14 J	3.9 U	13	9.8 U	6 J	4.9 U	R
Endrin ketone	9.8 U	4.9 U	3.9 U	4.9 U	9.8 U	9.8 UJ	6.4 J	R
gamma-Chlordane	7.5	16 J	14	6.6	5.1 U	3.8 J	19	8.8 J
Heptachlor epoxide	5 U	2.5 U	2.5 J	1.4 J	5.1 U	5.1 UJ	11 J	5.2 J
Metals (mg/Kg)								
Aluminum	3.4 J	1.4 UJ	9.8 UJ	3.1 UJ	8.4 J	2.5 UJ	6.8 J	5.6 J
Antimony	0.11 U	0.092 U	0.098 U	0.083 U	0.11 U	R	0.1 U	0.11 U
Arsenic	0.1 U	0.088 U	0.096	0.079 U	0.15 UJ	0.099 U	0.12 UJ	0.11 UJ
Barium	1.6 UJ	0.44 U	2.3 U	0.7 UJ	1.1	1.2	1.5	1.7
Cadmium	0.021 J	0.02 J	0.017 J	0.018 J	0.04 J	0.032 J	0.024 J	0.026 J
Calcium	20100 J	25200	16000 UJ	24600 J	33000	25800	35000	25500
Chromium	0.31 J	0.32 J	0.38 J	0.31 J	0.65 J	0.44 J	0.74 J	0.49 J
Cobalt	0.05 UJ	0.042 UJ	0.045 UJ	0.038 UJ	0.049 J	0.06 J	0.048 J	0.058 J
Copper	1.9	0.42 J	0.71 J	1.2 J	1.8 J	2.2 J	1.4 J	4.5 J
Cyanide	0.48 UJ	0.52 U	0.43 U	0.47 J	0.54 U	0.56 U	0.47 U	0.56 U
Iron	43 J	17.8	181 J	33.5 J	39.9	36.3	38.3	42.5
Lead	0.075 UJ	0.066 J	0.52 UJ	0.056 UJ	0.074 UJ	0.07 UJ	0.071 UJ	0.075 UJ
Magnesium	483 UJ	550 U	458 UJ	587 UJ	692 U	580 U	737 U	581 U
Mercury	0.05 J	0.13	0.0092	0.13 J	0.34 UJ	0.16 UJ	0.038 UJ	0.033 UJ
Nickel	0.05 UJ	0.042 UJ	0.045 UJ	0.038 UJ	0.049 U	0.047 U	0.048 U	0.05 U
Potassium	2470 J	2570	2560 J	2640 J	2450	2470	2400	2540
Selenium	0.93 J	0.69 J	0.52 J	0.78 J	0.55 J	0.66 J	0.72 J	0.67 J
Silver	0.04 U	0.034 U	0.036 UJ	0.03 U	0.039 UJ	0.042 UJ	0.044 UJ	0.04 UJ
Zinc	26.5 J	20.3 J	22.4 J	23.5 J	29.9 J	27.9 J	33.5 J	28.1 J
PERCENT LIPIDS	2.3	6.5	2	2	0.6	0.8	5.3	2.4
% MOISTURE	80.8	65.3	72.6	65.6	71.2	75.6	68	68.6

US EPA ARCHIVE DOCUMENT

TABLE 2-209
LARGE FISH OFFAL TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-RV-05-O	LF-RV-06-O	LF-RV-10-O	LF-RV-13-O	LF-RV-14-O	LF-RV-15-O	LF-RV-20-O	LF-RV-21-O
Reach	5	5	5	5	5	5	6	6
Species	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass	largemouth bass
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	17 J	43 J	46	140	53	100	110 J	130 J
4,4'-DDE	110 J	160 J	260	490	190	540	320 J	420 J
4,4'-DDT	1.6 J	2.8 J	41	60	28	31	25 J	34 J
Aldrin	0.7 J	1.8 J	1.2 J	2.5 U	2.1	3.7	4 J	4 J
alpha-Chlordane	8.6 J	18 J	6.9 U	58	26	43	47 J	50 J
Aroclor-1248	9.9 U	25 U	25 U	25 U	15 U	25 U	25 U	25 U
Aroclor-1254	91 J	260 J	160	770	250	660	620 J	630 J
Aroclor-1260	220 J	270 J	720	650	320	450	440 J	490 J
beta-BHC	0.74 J	2.5 U	2.5 U	2.5 U	1.5 U	2.5 U	2.2 J	1.4 J
delta-BHC	1 U	2.5 U	2.5 U	2.5 U	1.5 U	2.5 U	2.6 U	2.5 U
Dieldrin	3.6 J	7.2 J	4.9 U	25	11	13	15 J	16 J
Endosulfan I	1 U	2.5 U	2.5 U	5.6 U	2.2 U	4.4 U	4.9 J	5.8 J
Endosulfan II	4.8 J	7.7 J	18 U	32 U	11 U	17 U	18 J	19 J
Endosulfan sulfate	1.5 J	4.9 U	5.4	4.9 U	1.6 J	5.3	5 U	4 J
Endrin	5.1 J	21 J	16 U	25	10 U	49	50 J	55 J
Endrin aldehyde	5.8 J	7.5 J	19	24	11	15	14 J	17 J
Endrin ketone	2 U	4.9 U	4.9 U	4.9 U	2.9 U	4.9 U	5 U	4.9 U
gamma-Chlordane	3.2 J	7 J	2.6	18	8.6	12	15 J	16 J
Heptachlor epoxide	0.64 J	1.4 J	2.5 U	2.5 U	1.7	2.5 U	2.6 U	2.5 U
Metals (mg/Kg)								
Aluminum	3.7 J	2.2 J	1.9 J	1.7 J	1.3 J	1.6 J	0.64 UJ	2.4 UJ
Antimony	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U	0.091 U	0.095 U	0.086 U
Arsenic	0.15 UJ	0.11 J	0.1 U	0.1 U	0.098 U	0.086 U	0.091 U	0.082 U
Barium	1 U	0.47 U	1.4 UJ	1 UJ	0.68 UJ	0.56 UJ	0.48 U	0.83 U
Cadmium	0.053 J	0.028 J	0.04 J	0.015 UJ	0.016 J	0.012 UJ	0.024 J	0.017 J
Calcium	21700 J	13000 UJ	67100 J	34000 J	22400 J	28900 J	33100	35600
Chromium	0.8 J	0.24 J	0.78 J	0.42 J	0.59 J	0.37 J	0.4 J	0.43 J
Cobalt	0.073 J	0.05 UJ	0.048 UJ	0.049 UJ	0.047 UJ	0.041 UJ	0.043 UJ	0.039 UJ
Copper	2.1 J	1.1 J	1.3 J	0.98 J	0.45 J	0.51 J	0.47 J	0.55 J
Cyanide	0.42 UJ	0.5 UJ	0.41 U	0.48 U	0.5 U	0.61 U	0.56 U	0.55 U
Iron	145 J	23.4 J	29.4 J	23.6 J	20.2	17.6 J	20.4	24.6
Lead	0.37 UJ	0.075 UJ	0.072 UJ	0.074 UJ	0.07 UJ	0.062 UJ	0.098 J	0.18 J
Magnesium	520 UJ	363 J	1130 UJ	738 UJ	525 UJ	611 UJ	675 U	605 U
Mercury	0.16 J	0.066 J	0.33 J	0.085 J	0.1 J	0.059 J	0.12	0.13
Nickel	0.83 J	0.05 UJ	0.048 UJ	0.049 UJ	0.047 UJ	0.041 UJ	0.043 UJ	0.039 UJ
Potassium	2500 J	2610 J	2420 J	2800 J	2400 J	2870 J	2820	2600
Selenium	0.63 J	0.74 J	0.7 J	0.61 J	0.6 J	0.61 J	0.75 J	0.7 J
Silver	0.04 UJ	0.04 UJ	0.039 UJ	0.039 UJ	0.037 UJ	0.033 J	0.04	0.031 U
Zinc	30.9 J	27.4 J	27.5 J	28.6 J	23.4 J	26.3 J	22.2 J	17.3 J
PERCENT LIPIDS	1	1.9	0.5	3.4	1.9	3.1	4	4.6
% MOISTURE	72.2	71.8	69.2	69.9	71.3	72	62.5	68.4

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TABLE 2-209
LARGE FISH OFFAL TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-RV-23-O	LF-RV-24-O
Reach	6	6
Species	largemouth bass	largemouth bass
SVOCs (ug/Kg)		
No Detections		
PCB/Pesticides (ug/Kg)		
4,4'-DDD	99 J	150 J
4,4'-DDE	310 J	380 J
4,4'-DDT	21 J	29 J
Aldrin	5.3 J	4.5 J
alpha-Chlordane	54 J	81 J
Aroclor-1248	25 U	25 U
Aroclor-1254	400 J	770 J
Aroclor-1260	350 J	480 J
beta-BHC	1.6 J	1.5 J
delta-BHC	2.5 U	2.5 U
Dieldrin	12 J	18 J
Endosulfan I	4.7 J	6.4 J
Endosulfan II	12 J	21 J
Endosulfan sulfate	5.9 J	4.1 J
Endrin	32 J	66 J
Endrin aldehyde	10 J	16 J
Endrin ketone	4.9 U	4.9 U
gamma-Chlordane	16 J	26 J
Heptachlor epoxide	2.5 U	2.5 U
Metals (mg/Kg)		
Aluminum	1 UJ	0.54 UJ
Antimony	0.095 U	0.1 U
Arsenic	0.091 U	0.096 U
Barium	0.32 U	0.68 U
Cadmium	0.014 J	R
Calcium	19700	25400
Chromium	0.24 J	0.31 J
Cobalt	0.043 UJ	0.046 UJ
Copper	0.4 J	0.65 J
Cyanide	0.55 U	0.46 U
Iron	20.1	21.5
Lead	0.07 J	0.09 J
Magnesium	474 U	554 U
Mercury	0.094	0.075
Nickel	0.043 UJ	0.046 UJ
Potassium	2650	2550
Selenium	0.64 J	0.96 J
Silver	0.035 U	0.037 U
Zinc	20 J	25.3 J
PERCENT LIPIDS	3.9	5.3
% MOISTURE	68.1	67.9

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TABLE 2-210
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 8	2200 - 6600	2169
1,2-Dichlorobenzene						0 / 8	2200 - 6600	2169
1,3-Dichlorobenzene						0 / 8	2200 - 6600	2169
1,4-Dichlorobenzene						0 / 8	2200 - 6600	2169
2,2'-oxybis(1-Chloropropane)						0 / 8	2200 - 6600	2169
2,4,5-Trichlorophenol						0 / 8	5300 - 16000	5238
2,4,6-Trichlorophenol						0 / 8	2200 - 6600	2169
2,4-Dichlorophenol						0 / 8	2200 - 6600	2169
2,4-Dimethylphenol						0 / 8	2200 - 6600	2169
2,4-Dinitrophenol						0 / 8	5300 - 16000	5238
2,4-Dinitrotoluene						0 / 8	2200 - 6600	2169
2,6-Dinitrotoluene						0 / 8	2200 - 6600	2169
2-Chloronaphthalene						0 / 8	2200 - 6600	2169
2-Chlorophenol						0 / 8	2200 - 6600	2169
2-Methylnaphthalene						0 / 8	2200 - 6600	2169
2-Methylphenol						0 / 8	2200 - 6600	2169
2-Nitroaniline						0 / 8	5300 - 16000	5238
2-Nitrophenol						0 / 8	2200 - 6600	2169
3,3'-Dichlorobenzidine						0 / 8	2200 - 6600	2169
3-Nitroaniline						0 / 8	5300 - 16000	5238
4,6-Dinitro-2-methylphenol						0 / 8	5300 - 16000	5238
4-Bromophenyl-phenylether						0 / 8	2200 - 6600	2169
4-Chloro-3-Methylphenol						0 / 8	2200 - 6600	2169
4-Chloroaniline						0 / 8	2200 - 6600	2169
4-Chlorophenyl-phenylether						0 / 8	2200 - 6600	2169
4-Methylphenol						0 / 8	2200 - 6600	2169
4-Nitroaniline						0 / 8	5300 - 16000	5238
4-Nitrophenol						0 / 8	5300 - 16000	5238
Acenaphthene						0 / 8	2200 - 6600	2169
Acenaphthylene						0 / 8	2200 - 6600	2169
Anthracene						0 / 8	2200 - 6600	2169
Benzo(a)anthracene						0 / 8	2200 - 6600	2169
Benzo(a)pyrene						0 / 8	2200 - 6600	2169
Benzo(b)fluoranthene						0 / 8	2200 - 6600	2169
Benzo(g,h,i)perylene						0 / 8	2200 - 6600	2169
Benzo(k)fluoranthene						0 / 8	2200 - 6600	2169
bis (2-Chloroethoxy) methane						0 / 8	2200 - 6600	2169
bis (2-Chloroethyl) Ether						0 / 8	2200 - 6600	2169
bis (2-Ethylhexyl) phthalate						0 / 8	2200 - 6600	2169
Butylbenzylphthalate						0 / 8	2200 - 6600	2169
Carbazole						0 / 8	2200 - 6600	2169
Chrysene						0 / 8	2200 - 6600	2169
Dibenz(a,h)anthracene						0 / 8	2200 - 6600	2169
Dibenzofuran						0 / 8	2200 - 6600	2169
Diethylphthalate						0 / 8	2200 - 6600	2169
Dimethylphthalate						0 / 8	2200 - 6600	2169
Di-n-butylphthalate						0 / 8	2200 - 6600	2169
Di-n-octylphthalate						0 / 8	2200 - 6600	2169
Fluoranthene						0 / 8	2200 - 6600	2169
Fluorene						0 / 8	2200 - 6600	2169
Hexachlorobenzene						0 / 8	2200 - 6600	2169
Hexachlorobutadiene						0 / 8	2200 - 6600	2169
Hexachlorocyclopentadiene						0 / 8	2200 - 6600	2169
Hexachloroethane						0 / 8	2200 - 6600	2169
Indeno(1,2,3-cd)pyrene						0 / 8	2200 - 6600	2169
Isophorone						0 / 8	2200 - 6600	2169
Naphthalene						0 / 8	2200 - 6600	2169
Nitrobenzene						0 / 8	2200 - 6600	2169
N-Nitroso-di-n-propylamine						0 / 8	2200 - 6600	2169
N-nitrosodiphenylamine						0 / 8	2200 - 6600	2169
Pentachlorophenol						0 / 8	5300 - 16000	5238
Phenanthrene						0 / 8	2200 - 6600	2169
Phenol						0 / 8	2200 - 6600	2169
Pyrene						0 / 8	2200 - 6600	2169

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TABLE 2-210
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.3		150	J	LF-LB-25	13 / 13	N/A	32
4,4'-DDE	16		280	J	LF-LB-25	13 / 13	N/A	86
4,4'-DDT	2.6	J	15	J	LF-LB-26	7 / 13	2 - 10	5.9
Aldrin						0 / 13	1 - 5.1	1.5
alpha-BHC	1	J	1	J	LF-LB-13	1 / 13	1 - 5.1	1.6
alpha-Chlordane	0.63	J	29	J	LF-LB-25	12 / 13	5.1	7.5
Aroclor-1016						0 / 13	9.9 - 50	15
Aroclor-1221						0 / 13	20 - 100	30
Aroclor-1232						0 / 13	9.9 - 50	15
Aroclor-1242						0 / 13	9.9 - 50	15
Aroclor-1248						0 / 13	9.9 - 50	15
Aroclor-1254	72	J	250	J	LF-LB-25	5 / 13	9.9 - 50	55
Aroclor-1260	25		520	J	LF-LB-25	13 / 13	N/A	140
beta-BHC						0 / 13	1 - 5.1	1.5
delta-BHC						0 / 13	1 - 5.1	1.5
Dieldrin	2.8	J	2.8	J	LF-LB-12	1 / 13	2 - 10	3.0
Endosulfan I	2.8	J	5.5	J	LF-LB-25	2 / 13	1 - 5.1	1.9
Endosulfan II	4	J	13	J	LF-LB-25	7 / 13	2 - 10	5.1
Endosulfan sulfate	1.2	J	1.2	J	LF-LB-13	1 / 13	2 - 10	3.0
Endrin						0 / 13	2 - 10	3.0
Endrin aldehyde	2.6	J	18	J	LF-LB-25	2 / 13	2 - 10	4.1
Endrin ketone	1.2	J	6.4	J	LF-LB-25	3 / 13	2 - 10	3.1
gamma-BHC (lindane)						0 / 13	1 - 5.1	1.5
gamma-Chlordane	0.62	J	16	J	LF-LB-25	8 / 13	1 - 5.1	4.8
Heptachlor						0 / 13	1 - 5.1	1.5
Heptachlor epoxide	0.81	J	8.6	J	LF-LB-25	10 / 13	1 - 5.1	2.6
Methoxychlor						0 / 13	10 - 51	15
Toxaphene						0 / 13	100 - 510	152
Metals - mg/Kg								
Aluminum	6.8	J	21.8	J	LF-LB-24	4 / 13	1.7 - 3.4	5.1
Antimony	0.18		0.18		LF-LB-26	1 / 12	0.078 - 0.11	0.062
Arsenic						0 / 13	0.074 - 0.11	0.048
Barium	0.48		1.1		LF-LB-23	4 / 13	0.22 - 1.4	0.4
Beryllium						0 / 13	0.0074 - 0.013	0.0052
Cadmium	0.014	J	0.56		LF-LB-25	9 / 13	0.014 - 0.015	0.065
Calcium						0 / 13	1270 - 13100	2605
Chromium	0.086	J	0.3	J	LF-LB-12	5 / 13	0.085 - 0.26	0.12
Cobalt	0.053	J	0.087	J	LF-LB-24	4 / 13	0.035 - 0.05	0.039
Copper	0.36		0.92		LF-LB-12	7 / 13	0.35 - 0.56	0.49
Cyanide						0 / 13	0.4 - 0.57	0.24
Iron	16.4	J	63	J	LF-LB-12	13 / 13	N/A	35
Lead	0.19	J	0.42	J	LF-LB-24	4 / 13	0.053 - 0.32	0.15
Magnesium						0 / 13	198 - 445	141
Manganese						0 / 13	1.5 - 14.5	2.6
Mercury	0.11		0.59	J	LF-LB-19	5 / 13	0.014 - 0.19	0.15
Nickel						0 / 13	0.035 - 0.19	0.030
Potassium	2600	J	3450	J	LF-LB-22	13 / 13	N/A	3007
Selenium	0.55	J	1	J	LF-LB-22	13 / 13	N/A	0.74
Silver						0 / 13	0.028 - 0.04	0.018
Sodium						0 / 13	742 - 1070	446
Thallium						0 / 13	0.11 - 0.15	0.069
Vanadium						0 / 13	0.056 - 0.62	0.092
Zinc	17.5		36.3		LF-LB-12	13 / 13	N/A	24
PERCENT LIPIDS	1.9		17.8		LF-LB-17	13 / 13	N/A	7.0
% MOISTURE	56.2		76.9		LF-LB-23	13 / 13	N/A	70

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-211
LARGE FISH WHOLE BODY DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-11	LF-LB-12	LF-LB-13	LF-LB-17	LF-LB-18	LF-LB-19	LF-LB-20	LF-LB-21
Reach	7	7	7	7	7	7	7	7
Species	eel	eel	eel	eel	eel	eel	eel	eel
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	5.3	12	29	13	4.3	9.4	15	9.3 J
4,4'-DDE	28	37	140	43	16	130 J	160 J	49
4,4'-DDT	2.6 J	3.1 J	7.7 J	6.5 U	2 U	4 J	7.5 J	9.9 U
alpha-BHC	1.5 U	2.6 U	1 J	3.4 U	1 U	1 U	1 U	5.1 U
alpha-Chlordane	1.4 J	3.1	2.4 J	4.6	0.63 J	1.5 J	2 J	5.1 U
Aroclor-1254	15 U	25 U	9.9 U	33 U	10 U	10 U	9.9 U	50 U
Aroclor-1260	51	62	180	58 J	25	190	220	84
Dieldrin	3 U	2.8 J	2 U	6.5 U	2 U	2 U	2 U	9.9 U
Endosulfan I	1.5 U	2.6 U	1 U	3.4 U	1 U	1 U	1 U	5.1 U
Endosulfan II	3 U	4.2 J	5.9 J	4 J	2 U	4.6 J	5.5 J	9.9 U
Endosulfan sulfate	3 U	5 U	1.2 J	6.5 U	2 U	2 U	2 U	9.9 U
Endrin aldehyde	2.6 J	5 U	2 U	6.5 U	2 U	2 U	2 U	9.9 U
Endrin ketone	3 U	5 U	1.2 J	6.5 U	2 U	2 U	2 U	9.9 U
gamma-Chlordane	1.5 U	2.6 U	0.71 J	1.8 J	1 U	1 U	0.62 J	5.1 U
Heptachlor epoxide	0.81 J	2 J	1.5 J	2 J	1 U	1 J	1.1 J	5.1 U
Metals (mg/Kg)								
Aluminum	3.2 UJ	3.4 UJ	2.6 UJ	1.9 UJ	2.3 UJ	9.2 J	1.8 UJ	6.8 J
Antimony	0.11 U	0.11 U	0.11 U	0.089 U	0.11 U	0.099 U	0.078 U	0.1 U
Barium	0.43 U	0.39 U	0.84 U	0.27 U	0.65 U	0.77 U	0.51 U	0.22 U
Cadmium	0.056	0.047	0.062	0.016	0.015 U	0.014 U	0.016	0.03
Chromium	0.086 J	0.3 J	0.14 J	0.086 UJ	0.14 UJ	0.085 UJ	0.11 UJ	0.09 UJ
Cobalt	0.05 UJ	0.05 UJ	0.049 UJ	0.04 UJ	0.049 UJ	0.045 UJ	0.035 UJ	0.048 UJ
Copper	0.72	0.92	0.36	0.54 U	0.43 U	0.54 U	0.35 U	0.56 U
Iron	40.4 J	63 J	36.6 J	28.5 J	22.3 J	59.7 J	16.4 J	27 J
Lead	0.17 UJ	0.32 UJ	0.28 UJ	0.068 UJ	0.095 UJ	0.2 UJ	0.053 UJ	0.13 UJ
Mercury	0.13	0.11	0.26	0.15 UJ	0.12 UJ	0.59 J	0.55 J	0.19 UJ
Potassium	3140 J	2600 J	2850 J	2650 J	3340 J	3190 J	3080 J	2970 J
Selenium	0.81 J	0.78 J	0.9 J	0.8 J	0.77 J	0.79 J	0.67 J	0.72 J
Zinc	25.8	36.3	23.6	27.6	24.5	25.9	22.4	27.2
PERCENT LIPIDS	3.7	12	9	17.8	3.8	6.3	5.6	9.5
% MOISTURE	75	56.2	67.4	57.9	75.1	67.6	72.4	69.8

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TABLE 2-211
LARGE FISH WHOLE BODY DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LB-22	LF-LB-23	LF-LB-24	LF-LB-25	LF-LB-26
Reach	Horn Pond	Horn Pond	Horn Pond	Horn Pond	Horn Pond
Species	white sucker	white sucker	white sucker	white sucker	white sucker
SVOCs (ug/Kg)					
No Detections					
PCB/Pesticides (ug/Kg)					
4,4'-DDD	37	40	30	150 J	64
4,4'-DDE	56	36	32	280 J	110 J
4,4'-DDT	10 U	9.8 U	9.9 U	13 J	15 J
alpha-BHC	5.1 U	5 U	5.1 U	5 U	2.6 U
alpha-Chlordane	9.7 J	11	10	29 J	20 J
Aroclor-1254	100 J	89 J	72 J	250 J	120 J
Aroclor-1260	98	76	55	520 J	200
Dieldrin	10 U	9.8 U	9.9 U	9.8 U	5 U
Endosulfan I	5.1 U	5 U	5.1 U	5.5 J	2.8 J
Endosulfan II	10 U	9.8 U	9.9 U	13 J	6.4 J
Endosulfan sulfate	10 U	9.8 U	9.9 U	9.8 U	5 U
Endrin aldehyde	10 U	9.8 U	9.9 U	18 J	5 U
Endrin ketone	10 U	9.8 U	9.9 U	6.4 J	3 J
gamma-Chlordane	7.4	9.7	8	16 J	13
Heptachlor epoxide	5.1 U	2.8 J	2.7 J	8.6 J	5.5 J
Metals (mg/Kg)					
Aluminum	1.7 UJ	17 J	21.8 J	2.4 UJ	3.4 UJ
Antimony	0.1 U	R	0.1 U	0.11 U	0.18
Barium	1.4 U	1.1	0.64	0.73	0.48
Cadmium	0.014 UJ	0.014 J	0.014 U	0.56	0.017
Chromium	0.26 UJ	0.3 J	0.22 J	0.16 UJ	0.12 UJ
Cobalt	0.046 UJ	0.08 J	0.087 J	0.082 J	0.053 J
Copper	0.5 UJ	0.84 J	0.69	0.75	0.62
Iron	16.7 J	40.1	44.5	34.2	21
Lead	0.068 UJ	0.4 J	0.42 J	0.19 J	0.21 J
Mercury	0.016 UJ	0.014 UJ	0.021 UJ	0.064 UJ	0.079 UJ
Potassium	3450 J	3160	3130	2830	2700
Selenium	1 J	0.72 J	0.58 J	0.55 J	0.55 J
Zinc	19.6 J	21.6 J	17.5	18.7	19.2
PERCENT LIPIDS	1.9	2.4	3.8	9.1	6.2
% MOISTURE	75.9	76.9	75.9	68.6	73.3

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TABLE 2-212
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REACH 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	28	J	28	J	LF-RV-16	1 / 1	N/A	28
4,4'-DDE	44	J	44	J	LF-RV-16	1 / 1	N/A	44
4,4'-DDT	6.9	J	6.9	J	LF-RV-16	1 / 1	N/A	6.9
Aldrin						0 / 1	2.5	1.3
alpha-BHC						0 / 1	2.5	1.3
alpha-Chlordane	18	J	18	J	LF-RV-16	1 / 1	N/A	18
Aroclor-1016						0 / 1	25	13
Aroclor-1221						0 / 1	49	25
Aroclor-1232						0 / 1	25	13
Aroclor-1242						0 / 1	25	13
Aroclor-1248						0 / 1	25	13
Aroclor-1254	96	J	96	J	LF-RV-16	1 / 1	N/A	96
Aroclor-1260	120	J	120	J	LF-RV-16	1 / 1	N/A	120
beta-BHC						0 / 1	2.5	1.3
delta-BHC						0 / 1	2.5	1.3
Dieldrin	15	J	15	J	LF-RV-16	1 / 1	N/A	15
Endosulfan I						0 / 1	2.5	1.3
Endosulfan II						0 / 1	4.9	2.5
Endosulfan sulfate						0 / 1	4.9	2.5
Endrin						0 / 1	4.9	2.5
Endrin aldehyde						0 / 1	4.9	2.5
Endrin ketone						0 / 1	4.9	2.5
gamma-BHC (lindane)						0 / 1	2.5	1.3
gamma-Chlordane	11	J	11	J	LF-RV-16	1 / 1	N/A	11
Heptachlor						0 / 1	2.5	1.3
Heptachlor epoxide	1.4	J	1.4	J	LF-RV-16	1 / 1	N/A	1.4
Methoxychlor						0 / 1	25	13
Toxaphene						0 / 1	250	125
Metals - mg/Kg								
Aluminum						0 / 1	4.1	2.1
Antimony						0 / 1	0.11	0.055
Arsenic						0 / 1	0.1	0.050
Barium						0 / 1	0.92	0.46
Beryllium						0 / 1	0.013	0.0065
Cadmium	0.048	J	0.048	J	LF-RV-16	1 / 1	N/A	0.048
Calcium						0 / 1	16800	8400
Chromium	0.28	J	0.28	J	LF-RV-16	1 / 1	N/A	0.28
Cobalt						0 / 1	0.049	0.025
Copper	0.79	J	0.79	J	LF-RV-16	1 / 1	N/A	0.79
Cyanide						0 / 1	0.68	0.34
Iron	26.5		26.5		LF-RV-16	1 / 1	N/A	27
Lead	0.34	J	0.34	J	LF-RV-16	1 / 1	N/A	0.34
Magnesium						0 / 1	485	243
Manganese						0 / 1	11.7	5.9
Mercury	0.063		0.063		LF-RV-16	1 / 1	N/A	0.063
Nickel						0 / 1	0.049	0.025
Potassium	3150		3150		LF-RV-16	1 / 1	N/A	3150
Selenium	0.93	J	0.93	J	LF-RV-16	1 / 1	N/A	0.93
Silver						0 / 1	0.039	0.020
Sodium						0 / 1	1040	520
Thallium						0 / 1	0.15	0.075
Zinc	43.6	J	43.6	J	LF-RV-16	1 / 1	N/A	44
Zinc	25.9	J	43.6	J	LF-RV-16	7 / 7	N/A	
PERCENT LIPIDS	3.9		3.9		LF-RV-16	1 / 1	N/A	3.9
% MOISTURE	74.3		74.3		LF-RV-16	1 / 1	N/A	74

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-213
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	20		50		LF-LK-17	5 / 5	N/A	31
4,4'-DDE	24		110		LF-LK-17	5 / 5	N/A	60
4,4'-DDT	2.3	J	11		LF-LK-17	4 / 5	9.8	7.4
Aldrin	1.5	J	3		LF-LK-17	3 / 5	5 - 5.1	2.5
alpha-BHC						0 / 5	1 - 5.1	1.9
alpha-Chlordane	16		39		LF-LK-17	5 / 5	N/A	25
Aroclor-1016						0 / 5	10 - 50	18
Aroclor-1221						0 / 5	20 - 99	37
Aroclor-1232						0 / 5	10 - 50	18
Aroclor-1242						0 / 5	10 - 50	18
Aroclor-1248						0 / 5	10 - 50	18
Aroclor-1254	88		220		LF-LK-17	5 / 5	N/A	166
Aroclor-1260	56		260		LF-LK-16	5 / 5	N/A	170
beta-BHC	0.54	J	0.54	J	LF-LK-17	1 / 5	2.5 - 5.1	1.9
delta-BHC						0 / 5	1 - 5.1	1.9
Dieldrin	6.6		12		LF-LK-17	5 / 5	N/A	8.7
Endosulfan I	2		2		LF-LK-17	1 / 5	2.5 - 5.1	2.2
Endosulfan II						0 / 5	4.9 - 9.8	4.0
Endosulfan sulfate	1.7	J	1.7	J	LF-LK-17	1 / 5	4.9 - 9.8	3.8
Endrin	4.8	J	14		LF-LK-17	5 / 5	N/A	10
Endrin aldehyde	5.6	J	6.6		LF-LK-17	3 / 5	4.9 - 9.8	5.1
Endrin ketone	1.2	J	1.2	J	LF-LK-17	1 / 5	4.9 - 9.8	3.7
gamma-BHC (lindane)						0 / 5	1 - 5.1	1.9
gamma-Chlordane	9.2		21		LF-LK-17	5 / 5	N/A	14
Heptachlor						0 / 5	1 - 5.1	1.9
Heptachlor epoxide	2.1		2.1		LF-LK-17	1 / 5	2.5 - 5.1	2.2
Methoxychlor						0 / 5	10 - 51	19
Toxaphene						0 / 5	100 - 510	186
Metals - mg/Kg								
Aluminum	3.4	J	13.1	J	LF-LK-15	5 / 5	N/A	7.6
Antimony						0 / 5	0.077 - 0.097	0.045
Arsenic						0 / 5	0.074 - 0.15	0.052
Barium						0 / 5	0.49 - 1.1	0.39
Beryllium						0 / 5	0.0095 - 0.012	0.0056
Cadmium	0.011	J	0.022		LF-LK-16	4 / 5	0.013	0.015
Calcium						0 / 5	6090 - 10500	3992
Chromium	0.17	J	0.39	J	LF-LK-15	5 / 5	N/A	0.26
Cobalt	0.043	J	0.043	J	LF-LK-16	1 / 5	0.035 - 0.044	0.025
Copper	0.56		1		LF-LK-15	5 / 5	N/A	0.80
Cyanide						0 / 5	0.48 - 0.59	0.27
Iron	43	J	62.6	J	LF-LK-16	5 / 5	N/A	52
Lead	0.12	J	0.3	J	LF-LK-16	5 / 5	N/A	0.19
Magnesium						0 / 5	301 - 390	174
Manganese						0 / 5	3.2 - 7.1	2.3
Mercury	0.025	J	0.12	J	LF-LK-16	4 / 5	0.01	0.041
Nickel						0 / 5	0.035 - 0.044	0.020
Potassium	2820	J	3180	J	LF-LK-17	5 / 5	N/A	3060
Selenium	0.65	J	0.76	J	LF-LK-18	5 / 5	N/A	0.70
Silver						0 / 5	0.028 - 0.035	0.016
Sodium						0 / 5	816 - 1090	471
Thallium						0 / 5	0.11 - 0.13	0.061
Vanadium						0 / 4	0.045 - 0.1	0.036
Zinc	18.6		23.1		LF-LK-15	5 / 5	N/A	21
PERCENT LIPIDS	2.5		4.4		LF-LK-17	5 / 5	N/A	3.2
% MOISTURE	71		76.8		LF-LK-16	5 / 5	N/A	74

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-214
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	19		36		LF-RV-11	4 / 4	N/A	28
4,4'-DDE	20		41		LF-RV-11	4 / 4	N/A	34
4,4'-DDT	3.3	J	7.3		LF-RV-12	4 / 4	N/A	5.7
Aldrin	1.5	J	3.1		LF-RV-11	3 / 4	5	2.5
alpha-BHC						0 / 4	2.5 - 5	1.6
alpha-Chlordane	19	J	38		LF-RV-11	4 / 4	N/A	28
Aroclor-1016						0 / 4	25 - 49	16
Aroclor-1221						0 / 4	50 - 99	31
Aroclor-1232						0 / 4	25 - 49	16
Aroclor-1242						0 / 4	25 - 49	16
Aroclor-1248						0 / 4	25 - 49	16
Aroclor-1254	75		140		LF-RV-11	4 / 4	N/A	107
Aroclor-1260	33		68	J	LF-RV-08	4 / 4	N/A	56
beta-BHC						0 / 4	2.5 - 5	1.6
delta-BHC						0 / 4	2.5 - 5	1.6
Dieldrin	5.9	J	12		LF-RV-11	4 / 4	N/A	8.3
Endosulfan I						0 / 4	2.5 - 5	1.6
Endosulfan II						0 / 4	4.9 - 9.8	3.1
Endosulfan sulfate						0 / 4	4.9 - 9.8	3.1
Endrin	3.5	J	5.6	J	LF-RV-08	2 / 4	5 - 6.9	3.8
Endrin aldehyde	2.9	J	3	J	LF-RV-11	2 / 4	4.9 - 9.8	3.3
Endrin ketone						0 / 4	4.9 - 9.8	3.1
gamma-BHC (lindane)						0 / 4	2.5 - 5	1.6
gamma-Chlordane	12		23		LF-RV-11	4 / 4	N/A	18
Heptachlor						0 / 4	2.5 - 5	1.6
Heptachlor epoxide	1.6	J	1.9	J	LF-RV-11	2 / 4	2.5 - 5	1.8
Methoxychlor						0 / 4	25 - 50	16
Toxaphene						0 / 4	250 - 500	159
Metals - mg/Kg								
Aluminum	4.6	J	10.1	J	LF-RV-08	4 / 4	N/A	6.2
Antimony						0 / 4	0.089 - 0.1	0.048
Arsenic						0 / 4	0.11 - 0.23	0.084
Barium						0 / 4	0.77 - 0.91	0.42
Beryllium						0 / 4	0.011 - 0.012	0.0058
Cadmium	0.018		0.025	J	LF-RV-09	4 / 4	N/A	0.020
Calcium						0 / 4	9590 - 14900	6449
Chromium	0.23	J	0.33	J	LF-RV-08	4 / 4	N/A	0.27
Cobalt	0.043	J	0.064	J	LF-RV-11	4 / 4	N/A	0.052
Copper	1	J	1.1	J	LF-RV-08	4 / 4	N/A	1.1
Cyanide						0 / 4	0.42 - 0.49	0.22
Iron	30.9	J	39.3	J	LF-RV-08	3 / 4	25.6	29
Lead						0 / 4	0.063 - 0.13	0.041
Magnesium						0 / 4	363 - 470	216
Manganese						0 / 4	13.9 - 24.9	8.9
Mercury	0.023	J	0.033	J	LF-RV-12	4 / 4	N/A	0.026
Nickel						0 / 4	0.042 - 0.046	0.022
Potassium	3090	J	3640	J	LF-RV-09	4 / 4	N/A	3313
Selenium	0.55	J	0.82	J	LF-RV-09	4 / 4	N/A	0.65
Silver						0 / 4	0.033 - 0.037	0.017
Sodium						0 / 4	963 - 1040	495
Thallium						0 / 4	0.12 - 0.14	0.066
Vanadium						0 / 2	0.05 - 0.23	0.070
Zinc	21.9	J	26	J	LF-RV-12	4 / 4	N/A	24
PERCENT LIPIDS	2		4.4		LF-RV-11	4 / 4	N/A	3.1
% MOISTURE	74.9		76.9		LF-RV-08	4 / 4	N/A	76

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-215
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 5	2200 - 6600	1870
1,2-Dichlorobenzene						0 / 5	2200 - 6600	1870
1,3-Dichlorobenzene						0 / 5	2200 - 6600	1870
1,4-Dichlorobenzene						0 / 5	2200 - 6600	1870
2,2'-oxybis(1-Chloropropane)						0 / 5	2200 - 6600	1870
2,4,5-Trichlorophenol						0 / 5	5300 - 16000	4510
2,4,6-Trichlorophenol						0 / 5	2200 - 6600	1870
2,4-Dichlorophenol						0 / 5	2200 - 6600	1870
2,4-Dimethylphenol						0 / 5	2200 - 6600	1870
2,4-Dinitrophenol						0 / 5	5300 - 16000	4510
2,4-Dinitrotoluene						0 / 5	2200 - 6600	1870
2,6-Dinitrotoluene						0 / 5	2200 - 6600	1870
2-Chloronaphthalene						0 / 5	2200 - 6600	1870
2-Chlorophenol						0 / 5	2200 - 6600	1870
2-Methylnaphthalene						0 / 5	2200 - 6600	1870
2-Methylphenol						0 / 5	2200 - 6600	1870
2-Nitroaniline						0 / 5	5300 - 16000	4510
2-Nitrophenol						0 / 5	2200 - 6600	1870
3,3'-Dichlorobenzidine						0 / 5	2200 - 6600	1870
3-Nitroaniline						0 / 5	5300 - 16000	4510
4,6-Dinitro-2-methylphenol						0 / 5	5300 - 16000	4510
4-Bromophenyl-phenylether						0 / 5	2200 - 6600	1870
4-Chloro-3-Methylphenol						0 / 5	2200 - 6600	1870
4-Chloroaniline						0 / 5	2200 - 6600	1870
4-Chlorophenyl-phenylether						0 / 5	2200 - 6600	1870
4-Methylphenol						0 / 5	2200 - 6600	1870
4-Nitroaniline						0 / 5	5300 - 16000	4510
4-Nitrophenol						0 / 5	5300 - 16000	4510
Acenaphthene						0 / 5	2200 - 6600	1870
Acenaphthylene						0 / 5	2200 - 6600	1870
Anthracene						0 / 5	2200 - 6600	1870
Benzo(a)anthracene						0 / 5	2200 - 6600	1870
Benzo(a)pyrene						0 / 5	2200 - 6600	1870
Benzo(b)fluoranthene						0 / 5	2200 - 6600	1870
Benzo(g,h,i)perylene						0 / 5	2200 - 6600	1870
Benzo(k)fluoranthene						0 / 5	2200 - 6600	1870
bis (2-Chloroethoxy) methane						0 / 5	2200 - 6600	1870
bis (2-Chloroethyl) Ether						0 / 5	2200 - 6600	1870
bis (2-Ethylhexyl) phthalate						0 / 5	2200 - 6600	1870
Butylbenzylphthalate						0 / 5	2200 - 6600	1870
Carbazole						0 / 5	2200 - 6600	1870
Chrysene						0 / 5	2200 - 6600	1870
Dibenz(a,h)anthracene						0 / 5	2200 - 6600	1870
Dibenzofuran						0 / 5	2200 - 6600	1870
Diethylphthalate						0 / 5	2200 - 6600	1870
Dimethylphthalate						0 / 5	2200 - 6600	1870
Di-n-butylphthalate						0 / 5	2200 - 6600	1870
Di-n-octylphthalate						0 / 5	2200 - 6600	1870
Fluoranthene						0 / 5	2200 - 6600	1870
Fluorene						0 / 5	2200 - 6600	1870
Hexachlorobenzene						0 / 5	2200 - 6600	1870
Hexachlorobutadiene						0 / 5	2200 - 6600	1870
Hexachlorocyclopentadiene						0 / 5	2200 - 6600	1870
Hexachloroethane						0 / 5	2200 - 6600	1870
Indeno(1,2,3-cd)pyrene						0 / 5	2200 - 6600	1870
Isophorone						0 / 5	2200 - 6600	1870
Naphthalene						0 / 5	2200 - 6600	1870
Nitrobenzene						0 / 5	2200 - 6600	1870
N-Nitroso-di-n-propylamine						0 / 5	2200 - 6600	1870
N-nitrosodiphenylamine						0 / 5	2200 - 6600	1870
Pentachlorophenol						0 / 5	5300 - 16000	4510
Phenanthrene						0 / 5	2200 - 6600	1870
Phenol						0 / 5	2200 - 6600	1870
Pyrene						0 / 5	2200 - 6600	1870

US EPA ARCHIVE DOCUMENT

TABLE 2-215
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	50		360		LF-LK-31	5 / 5	N/A	167
4,4'-DDE	130		820		LF-LK-31	5 / 5	N/A	350
4,4'-DDT	5	J	68	J	LF-LK-31	5 / 5	N/A	26
Aldrin	0.68	J	1.5	J	LF-LK-35	2 / 5	1 - 7.5	1.4
alpha-BHC						0 / 5	1 - 7.5	1.3
alpha-Chlordane	18	J	110	J	LF-LK-31	5 / 5	N/A	53
Aroclor-1016						0 / 5	9.9 - 74	13
Aroclor-1221						0 / 5	20 - 74	18
Aroclor-1232						0 / 5	9.9 - 74	13
Aroclor-1242						0 / 5	9.9 - 74	13
Aroclor-1248						0 / 5	9.9 - 74	13
Aroclor-1254	69	J	260		LF-LK-34	4 / 5	74	151
Aroclor-1260	210		1100		LF-LK-31	5 / 5	N/A	530
beta-BHC	0.6	J	1	J	LF-LK-34	2 / 5	1 - 7.5	1.4
delta-BHC	0.47	J	0.47	J	LF-LK-33	1 / 5	1 - 7.5	1.3
Dieldrin	17	J	59	J	LF-LK-31	4 / 5	2	26
Endosulfan I						0 / 5	1 - 7.5	1.3
Endosulfan II	7.1	J	17	J	LF-LK-35	4 / 5	15	11
Endosulfan sulfate	1.3	J	8.8	J	LF-LK-31	4 / 5	2	4.1
Endrin	1.2	J	32	J	LF-LK-31	3 / 5	2 - 4.9	7.9
Endrin aldehyde	8	J	23	J	LF-LK-31	2 / 5	2 - 4.9	7.1
Endrin ketone	1.5	J	6.6	J	LF-LK-34	4 / 5	15	4.7
gamma-BHC (lindane)						0 / 5	1 - 7.5	1.3
gamma-Chlordane	7.9		26	J	LF-LK-31	5 / 5	N/A	17
Heptachlor						0 / 5	1 - 7.5	1.3
Heptachlor epoxide	4.4	J	10	J	LF-LK-31	5 / 5	N/A	7.9
Methoxychlor						0 / 5	10 - 75	13
Toxaphene						0 / 5	100 - 750	130
Metals - mg/Kg								
Aluminum	3.9	J	3.9	J	LF-LK-32	1 / 5	1 - 3	1.6
Antimony						0 / 5	0.084 - 0.12	0.051
Arsenic						0 / 5	0.08 - 0.1	0.047
Barium						0 / 5	0.16 - 0.98	0.21
Beryllium						0 / 5	0.0034 - 0.013	0.0050
Cadmium	0.015		0.054		LF-LK-33	3 / 5	0.014 - 0.015	0.021
Calcium						0 / 5	1570 - 10600	2238
Chromium	0.1	J	0.1	J	LF-LK-31	1 / 5	0.073 - 0.22	0.083
Cobalt						0 / 5	0.038 - 0.05	0.022
Copper	0.5		0.62		LF-LK-35	3 / 5	0.3 - 0.43	0.42
Cyanide						0 / 5	0.42 - 0.6	0.25
Iron	20.4	J	27.9	J	LF-LK-35	5 / 5	N/A	24
Lead	0.1	J	1	J	LF-LK-34	2 / 5	0.063 - 0.29	0.26
Magnesium						0 / 5	197 - 350	128
Manganese						0 / 5	1.6 - 7	2.2
Mercury	0.13	J	0.13	J	LF-LK-31	1 / 5	0.0099 - 0.093	0.050
Nickel						0 / 5	0.045 - 0.078	0.029
Potassium	1320	J	3140	J	LF-LK-35	5 / 5	N/A	2078
Selenium	0.69	J	0.93	J	LF-LK-32	5 / 5	N/A	0.82
Silver						0 / 5	0.031 - 0.073	0.022
Sodium						0 / 5	444 - 997	317
Thallium						0 / 5	0.11 - 0.17	0.071
Vanadium						0 / 5	0.05 - 0.088	0.034
Zinc	21.7		34.4		LF-LK-31	5 / 5	N/A	28
PERCENT LIPIDS	2.8		13.8		LF-LK-31	5 / 5	N/A	8.1
% MOISTURE	59.5		74.9		LF-LK-35	5 / 5	N/A	70

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-216
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 5	2200 - 6600	1870
1,2-Dichlorobenzene						0 / 5	2200 - 6600	1870
1,3-Dichlorobenzene						0 / 5	2200 - 6600	1870
1,4-Dichlorobenzene						0 / 5	2200 - 6600	1870
2,2'-oxybis(1-Chloropropane)						0 / 5	2200 - 6600	1870
2,4,5-Trichlorophenol						0 / 5	5300 - 16000	4510
2,4,6-Trichlorophenol						0 / 5	2200 - 6600	1870
2,4-Dichlorophenol						0 / 5	2200 - 6600	1870
2,4-Dimethylphenol						0 / 5	2200 - 6600	1870
2,4-Dinitrophenol						0 / 5	5300 - 16000	4510
2,4-Dinitrotoluene						0 / 5	2200 - 6600	1870
2,6-Dinitrotoluene						0 / 5	2200 - 6600	1870
2-Chloronaphthalene						0 / 5	2200 - 6600	1870
2-Chlorophenol						0 / 5	2200 - 6600	1870
2-Methylnaphthalene						0 / 5	2200 - 6600	1870
2-Methylphenol						0 / 5	2200 - 6600	1870
2-Nitroaniline						0 / 5	5300 - 16000	4510
2-Nitrophenol						0 / 5	2200 - 6600	1870
3,3'-Dichlorobenzidine						0 / 5	2200 - 6600	1870
3-Nitroaniline						0 / 5	5300 - 16000	4510
4,6-Dinitro-2-methylphenol						0 / 5	5300 - 16000	4510
4-Bromophenyl-phenylether						0 / 5	2200 - 6600	1870
4-Chloro-3-Methylphenol						0 / 5	2200 - 6600	1870
4-Chloroaniline						0 / 5	2200 - 6600	1870
4-Chlorophenyl-phenylether						0 / 5	2200 - 6600	1870
4-Methylphenol						0 / 5	2200 - 6600	1870
4-Nitroaniline						0 / 5	5300 - 16000	4510
4-Nitrophenol						0 / 5	5300 - 16000	4510
Acenaphthene						0 / 5	2200 - 6600	1870
Acenaphthylene						0 / 5	2200 - 6600	1870
Anthracene						0 / 5	2200 - 6600	1870
Benzo(a)anthracene						0 / 5	2200 - 6600	1870
Benzo(a)pyrene						0 / 5	2200 - 6600	1870
Benzo(b)fluoranthene						0 / 5	2200 - 6600	1870
Benzo(g,h,i)perylene						0 / 5	2200 - 6600	1870
Benzo(k)fluoranthene						0 / 5	2200 - 6600	1870
bis (2-Chloroethoxy) methane						0 / 5	2200 - 6600	1870
bis (2-Chloroethyl) Ether						0 / 5	2200 - 6600	1870
bis (2-Ethylhexyl) phthalate						0 / 5	2200 - 6600	1870
Butylbenzylphthalate						0 / 5	2200 - 6600	1870
Carbazole						0 / 5	2200 - 6600	1870
Chrysene						0 / 5	2200 - 6600	1870
Dibenz(a,h)anthracene						0 / 5	2200 - 6600	1870
Dibenzofuran						0 / 5	2200 - 6600	1870
Diethylphthalate						0 / 5	2200 - 6600	1870
Dimethylphthalate						0 / 5	2200 - 6600	1870
Di-n-butylphthalate						0 / 5	2200 - 6600	1870
Di-n-octylphthalate						0 / 5	2200 - 6600	1870
Fluoranthene						0 / 5	2200 - 6600	1870
Fluorene						0 / 5	2200 - 6600	1870
Hexachlorobenzene						0 / 5	2200 - 6600	1870
Hexachlorobutadiene						0 / 5	2200 - 6600	1870
Hexachlorocyclopentadiene						0 / 5	2200 - 6600	1870
Hexachloroethane						0 / 5	2200 - 6600	1870
Indeno(1,2,3-cd)pyrene						0 / 5	2200 - 6600	1870
Isophorone						0 / 5	2200 - 6600	1870
Naphthalene						0 / 5	2200 - 6600	1870
Nitrobenzene						0 / 5	2200 - 6600	1870
N-Nitroso-di-n-propylamine						0 / 5	2200 - 6600	1870
N-nitrosodiphenylamine						0 / 5	2200 - 6600	1870
Pentachlorophenol						0 / 5	5300 - 16000	4510
Phenanthrene						0 / 5	2200 - 6600	1870
Phenol						0 / 5	2200 - 6600	1870
Pyrene						0 / 5	2200 - 6600	1870

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TABLE 2-216
LARGE FISH WHOLE BODY TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	19		360		LF-LK-31	15 / 15	N/A	75
4,4'-DDE	20		820		LF-LK-31	15 / 15	N/A	148
4,4'-DDT	2.3	J	68	J	LF-LK-31	14 / 15	9.8	13
Aldrin	0.68	J	3.1		LF-RV-11	8 / 15	1 - 7.5	2.0
alpha-BHC						0 / 15	1 - 7.5	1.6
alpha-Chlordane	16		110	J	LF-LK-31	15 / 15	N/A	35
Aroclor-1016						0 / 15	9.9 - 74	15
Aroclor-1221						0 / 15	20 - 99	28
Aroclor-1232						0 / 15	9.9 - 74	15
Aroclor-1242						0 / 15	9.9 - 74	15
Aroclor-1248						0 / 15	9.9 - 74	15
Aroclor-1254	69	J	260		LF-LK-34	14 / 15	74	140
Aroclor-1260	33		1100		LF-LK-31	15 / 15	N/A	256
beta-BHC	0.54	J	1	J	LF-LK-34	3 / 15	1 - 7.5	1.6
delta-BHC	0.47	J	0.47	J	LF-LK-33	1 / 15	1 - 7.5	1.6
Dieldrin	5.9	J	59	J	LF-LK-31	14 / 15	2	15
Endosulfan I	2		2		LF-LK-17	1 / 15	1 - 7.5	1.7
Endosulfan II	7.1	J	17	J	LF-LK-35	4 / 15	4.9 - 15	5.9
Endosulfan sulfate	1.3	J	8.8	J	LF-LK-31	5 / 15	2 - 9.8	3.6
Endrin	1.2	J	32	J	LF-LK-31	10 / 15	2 - 6.9	7.3
Endrin aldehyde	2.9	J	23	J	LF-LK-31	7 / 15	2 - 9.8	5.1
Endrin ketone	1.2	J	6.6	J	LF-LK-34	5 / 15	4.9 - 15	3.8
gamma-BHC (lindane)						0 / 15	1 - 7.5	1.6
gamma-Chlordane	7.9		26	J	LF-LK-31	15 / 15	N/A	16
Heptachlor						0 / 15	1 - 7.5	1.6
Heptachlor epoxide	1.4	J	10	J	LF-LK-31	9 / 15	2.5 - 5.1	3.9
Methoxychlor						0 / 15	10 - 75	16
Toxaphene						0 / 15	100 - 750	156
Metals - mg/Kg								
Aluminum	3.4	J	13.1	J	LF-LK-15	10 / 15	1 - 4.1	4.8
Antimony						0 / 15	0.077 - 0.12	0.049
Arsenic						0 / 15	0.074 - 0.23	0.059
Barium						0 / 15	0.16 - 1.1	0.34
Beryllium						0 / 15	0.0034 - 0.013	0.0055
Cadmium	0.011	J	0.054		LF-LK-33	12 / 15	0.013 - 0.015	0.021
Calcium						0 / 15	1570 - 16800	4356
Chromium	0.1	J	0.39	J	LF-LK-15	11 / 15	0.073 - 0.22	0.20
Cobalt	0.043	J	0.064	J	LF-RV-11	5 / 15	0.035 - 0.05	0.031
Copper	0.5		1.1	J	LF-RV-08	13 / 15	0.3 - 0.43	0.74
Cyanide						0 / 15	0.42 - 0.68	0.26
Iron	20.4	J	62.6	J	LF-LK-16	14 / 15	25.6	35
Lead	0.1	J	1	J	LF-LK-34	8 / 15	0.063 - 0.29	0.18
Magnesium						0 / 15	197 - 485	174
Manganese						0 / 15	1.6 - 24.9	4.3
Mercury	0.023	J	0.13	J	LF-LK-31	10 / 15	0.0099 - 0.093	0.042
Nickel						0 / 15	0.035 - 0.078	0.024
Potassium	1320	J	3640	J	LF-RV-09	15 / 15	N/A	2806
Selenium	0.55	J	0.93	J	LF-LK-32	15 / 15	N/A	0.74
Silver						0 / 15	0.028 - 0.073	0.019
Sodium						0 / 15	444 - 1090	429
Thallium						0 / 15	0.11 - 0.17	0.067
Vanadium						0 / 11	0.045 - 0.23	0.041
Zinc	18.6		43.6	J	LF-RV-16	15 / 15	N/A	26
PERCENT LIPIDS	2		13.8		LF-LK-31	15 / 15	N/A	4.8
% MOISTURE	59.5		76.9		LF-RV-08	15 / 15	N/A	73

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-217
LARGE FISH WHOLE BODY DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-15	LF-LK-16	LF-LK-17	LF-LK-18	LF-LK-19	LF-LK-31	LF-LK-32	LF-LK-33
Reach	4	4	4	4	4	6	6	6
Species	white sucker	white sucker	white sucker	white sucker	white sucker	eel	eel	eel
SVOCs (ug/Kg)								
No Detections								
PCB/Pesticides (ug/Kg)								
4,4'-DDD	31	27	50	20	29	360	50	64
4,4'-DDE	38	61	110	24	65	820	160	130
4,4'-DDT	9.8 U	9.1 J	11	2.3 J	9.6 J	68 J	12 J	11 J
Aldrin	2.7 J	5.1 U	3	1.5 J	5 U	7.5 U	1 U	1 U
alpha-Chlordane	27	23	39	16	20	110 J	18 J	25 J
Aroclor-1254	140	180	220	88	200	74 U	140 J	69 J
Aroclor-1260	82	260	230	56	220	1100	270	210
beta-BHC	5 U	5.1 U	0.54 J	2.5 U	5 U	7.5 U	1 U	0.6 J
delta-BHC	5 U	5.1 U	1 U	2.5 U	5 U	7.5 U	1 U	0.47 J
Dieldrin	9.7 J	7.7 J	12	6.6	7.7 J	59 J	2 U	17 J
Endosulfan I	5 U	5.1 U	2	2.5 U	5 U	7.5 U	1 U	1 U
Endosulfan II	9.8 U	9.8 U	5.3 U	4.9 U	9.8 U	15 U	12 J	7.1 J
Endosulfan sulfate	9.8 U	9.8 U	1.7 J	4.9 U	9.8 U	8.8 J	1.3 J	2 U
Endrin	6.9 J	13	14	4.8 J	13 J	32 J	1.2 J	2 U
Endrin aldehyde	9.8 U	5.8 J	6.6	4.9 U	5.6 J	23 J	2 U	8 J
Endrin ketone	9.8 U	9.8 U	1.2 J	4.9 U	9.8 U	15 U	2.4 J	1.5 J
gamma-Chlordane	15	13	21	9.2	13	26 J	7.9	7.9
Heptachlor epoxide	5 U	5.1 U	2.1	2.5 U	5 U	10 J	4.4 J	5.1 J
Metals (mg/Kg)								
Aluminum	13.1 J	6.8 J	7 J	7.6 J	3.4 J	1 UJ	3.9 J	3 UJ
Cadmium	0.018	0.022	0.011 J	0.013 U	0.019	0.022	0.015	0.054
Chromium	0.39 J	0.2 J	0.3 J	0.23 J	0.17 J	0.1 J	0.19 UJ	0.073 UJ
Cobalt	0.043 UJ	0.043 J	0.035 UJ	0.044 UJ	0.041 UJ	0.039 UJ	0.038 UJ	0.046 UJ
Copper	1	0.66	0.96	0.8	0.56	0.5	0.6	0.43 U
Iron	61.3 J	62.6 J	46.1 J	43 J	45.5 J	25.3 J	24.8 J	20.7 J
Lead	0.25 J	0.3 J	0.14 J	0.12 J	0.14 J	0.1 J	0.063 UJ	0.29 UJ
Mercury	0.025 J	0.12 J	0.029 J	0.028 J	0.01 UJ	0.13 J	0.063 UJ	0.072 UJ
Potassium	3130 J	2820 J	3180 J	3170 J	3000 J	2050 J	1870 J	2010 J
Selenium	0.65 J	0.65 J	0.74 J	0.76 J	0.69 J	0.69 J	0.93 J	0.83 J
Zinc	23.1	22.5	22.8 J	19.7	18.6	34.4	24.8	21.7
PERCENT LIPIDS	3	2.8	4.4	2.5	3.1	13.8	2.8	4.4
% MOISTURE	71.8	76.8	74.9	73.6	71	59.5	74.6	69.3

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TABLE 2-217
LARGE FISH WHOLE BODY DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	LF-LK-34	LF-LK-35	LF-RV-08	LF-RV-09	LF-RV-11	LF-RV-12	LF-RV-16
Reach	6	6	5	5	5	5	2
Species	eel	eel	white sucker	white sucker	white sucker	white sucker	white sucker
SVOCs (ug/Kg)							
No Detections							
PCB/Pesticides (ug/Kg)							
4,4'-DDD	170 J	190 J	25 J	19	36	32	28 J
4,4'-DDE	190 J	450 J	35 J	20	41	39	44 J
4,4'-DDT	5 J	33 J	5.2 J	3.3 J	6.9	7.3	6.9 J
Aldrin	0.68 J	1.5 J	5 U	1.5 J	3.1	2.8	2.5 U
alpha-Chlordane	44 J	69 J	19 J	20	38	35	18 J
Aroclor-1254	260	250 J	92 J	75	140	120	96 J
Aroclor-1260	450 J	620 J	68 J	33	64	59	120 J
beta-BHC	1 J	2.5 U	5 U	2.5 U	2.6 U	2.6 U	2.5 U
delta-BHC	1 U	2.5 U	5 U	2.5 U	2.6 U	2.6 U	2.5 U
Dieldrin	21 J	34 J	5.9 J	6.1	12	9.1	15 J
Endosulfan I	1 U	2.5 U	5 U	2.5 U	2.6 U	2.6 U	2.5 U
Endosulfan II	11 J	17 J	9.8 U	4.9 U	5 U	5 U	4.9 U
Endosulfan sulfate	3.5 J	5.7 J	9.8 U	4.9 U	5 U	5 U	4.9 U
Endrin	2.9 J	4.9 U	5.6 J	3.5 J	5 U	6.9 U	4.9 U
Endrin aldehyde	2 U	4.9 U	9.8 U	4.9 U	3 J	2.9 J	4.9 U
Endrin ketone	6.6 J	5.7 J	9.8 U	4.9 U	5 U	5 U	4.9 U
gamma-Chlordane	23 J	18 J	16 J	12	23	20	11 J
Heptachlor epoxide	10 J	10 J	5 U	2.5 U	1.9 J	1.6 J	1.4 J
Metals (mg/Kg)							
Aluminum	2.2 UJ	1.6 UJ	10.1 J	4.6 J	5.1 J	5.1 J	4.1 UJ
Cadmium	0.015 U	0.014 U	0.019 J	0.025 J	0.018	0.019 J	0.048 J
Chromium	0.22 UJ	0.15 UJ	0.33 J	0.27 J	0.25 J	0.23 J	0.28 J
Cobalt	0.05 UJ	0.045 UJ	0.043 J	0.05 J	0.064 J	0.052 J	0.049 UJ
Copper	0.3 U	0.62	1.1 J	1.1 J	1.1	1 J	0.79 J
Iron	20.4 J	27.9 J	39.3 J	30.9 J	34 J	25.6 UJ	26.5
Lead	1 J	0.068 U	0.13 UJ	0.063 UJ	0.068 U	0.068 UJ	0.34 J
Mercury	0.0099 UJ	0.093 UJ	0.023 J	0.024 J	0.025 J	0.033 J	0.063
Potassium	1320 J	3140 J	3090 J	3640 J	3150 J	3370 J	3150
Selenium	0.8 J	0.84 J	0.6 J	0.82 J	0.63 J	0.55 J	0.93 J
Zinc	29.9	29	23.2 J	24.6 J	21.9 J	26 J	43.6 J
PERCENT LIPIDS	10.1	9.2	2	2.5	4.4	3.4	3.9
% MOISTURE	70	74.9	76.9	74.9	75.3	75.8	74.3

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TABLE 2-218
PLANT TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 2	330	165
1,2-Dichlorobenzene						0 / 2	330	165
1,3-Dichlorobenzene						0 / 2	330	165
1,4-Dichlorobenzene						0 / 2	330	165
2,2'-oxybis(1-Chloropropane)						0 / 2	330	165
2,4,5-Trichlorophenol						0 / 2	790	395
2,4,6-Trichlorophenol						0 / 2	330	165
2,4-Dichlorophenol						0 / 2	330	165
2,4-Dimethylphenol						0 / 2	330	165
2,4-Dinitrophenol						0 / 2	790	395
2,4-Dinitrotoluene						0 / 2	330	165
2,6-Dinitrotoluene						0 / 2	330	165
2-Chloronaphthalene						0 / 2	330	165
2-Chlorophenol						0 / 2	330	165
2-Methylnaphthalene						0 / 2	330	165
2-Methylphenol						0 / 2	330	165
2-Nitroaniline						0 / 2	790	395
2-Nitrophenol						0 / 2	330	165
3,3'-Dichlorobenzidine						0 / 2	330	165
3-Nitroaniline						0 / 2	790	395
4,6-Dinitro-2-methylphenol						0 / 2	790	395
4-Bromophenyl-phenylether						0 / 2	330	165
4-Chloro-3-Methylphenol						0 / 2	330	165
4-Chloroaniline						0 / 2	330	165
4-Chlorophenyl-phenylether						0 / 2	330	165
4-Methylphenol						0 / 2	330	165
4-Nitroaniline						0 / 2	790	395
4-Nitrophenol						0 / 2	790	395
Acenaphthene						0 / 2	330	165
Acenaphthylene						0 / 2	330	165
Anthracene						0 / 2	330	165
Benzo(a)anthracene						0 / 2	330	165
Benzo(a)pyrene						0 / 2	330	165
Benzo(b)fluoranthene						0 / 2	330	165
Benzo(g,h,i)perylene						0 / 2	330	165
Benzo(k)fluoranthene						0 / 2	330	165
bis (2-Chloroethoxy) methane						0 / 2	330	165
bis (2-Chloroethyl) Ether						0 / 2	330	165
bis (2-Ethylhexyl) phthalate						0 / 2	330	165
Butylbenzylphthalate						0 / 2	330	165
Carbazole						0 / 2	330	165
Chrysene						0 / 2	330	165
Di-n-butylphthalate						0 / 2	330	165
Di-n-octylphthalate						0 / 2	330	165
Dibenz(a,h)anthracene						0 / 2	330	165
Dibenzofuran						0 / 2	330	165
Diethylphthalate						0 / 2	330	165
Dimethylphthalate						0 / 2	330	165
Fluoranthene						0 / 2	330	165
Fluorene						0 / 2	330	165
Hexachlorobenzene						0 / 2	330	165
Hexachlorobutadiene						0 / 2	330	165
Hexachlorocyclopentadiene						0 / 2	330	165
Hexachloroethane						0 / 2	330	165
Indeno(1,2,3-cd)pyrene						0 / 2	330	165
Isophorone						0 / 2	330	165
N-Nitroso-di-n-propylamine						0 / 2	330	165
N-nitrosodiphenylamine						0 / 2	330	165
Naphthalene						0 / 2	330	165
Nitrobenzene						0 / 2	330	165
Pentachlorophenol						0 / 2	790	395
Phenanthrene						0 / 2	330	165
Phenol						0 / 2	330	165
Pyrene						0 / 2	330	165

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TABLE 2-218
PLANT TISSUE DATA SUMMARY - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.7		5.2		PL-23-01	2 / 2	N/A	5.0
4,4'-DDE	0.85	J	0.87	J	PL-23-01	2 / 2	N/A	0.86
4,4'-DDT	0.78	J	0.78	J	PL-23-01	1 / 2	0.98	0.64
Aldrin						0 / 2	0.5 - 0.51	0.25
alpha-BHC						0 / 2	0.5 - 0.51	0.25
alpha-Chlordane	0.43	J	0.45	J	PL-23-02	2 / 2	N/A	0.44
Aroclor-1016						0 / 2	5	2.5
Aroclor-1221						0 / 2	9.9 - 10	5.0
Aroclor-1232						0 / 2	5	2.5
Aroclor-1242						0 / 2	5	2.5
Aroclor-1248						0 / 2	5	2.5
Aroclor-1254						0 / 2	5	2.5
Aroclor-1260						0 / 2	5	2.5
beta-BHC						0 / 2	0.5 - 0.51	0.25
delta-BHC						0 / 2	0.5 - 0.51	0.25
Dieldrin						0 / 2	0.98	0.49
Endosulfan I						0 / 2	0.5 - 0.51	0.25
Endosulfan II						0 / 2	0.98	0.49
Endosulfan sulfate						0 / 2	0.98	0.49
Endrin						0 / 2	0.98	0.49
Endrin aldehyde						0 / 2	0.98	0.49
Endrin ketone						0 / 2	0.98	0.49
gamma-BHC (lindane)						0 / 2	0.5 - 0.51	0.25
gamma-Chlordane						0 / 2	0.5 - 0.51	0.25
Heptachlor	0.28	J	0.28	J	PL-23-01	1 / 2	0.5	0.27
Heptachlor epoxide						0 / 2	0.5 - 0.51	0.25
Methoxychlor						0 / 2	5 - 5.1	2.5
Toxaphene						0 / 2	50 - 51	25
Metals - mg/Kg								
Aluminum	69.3	J	83.9	J	PL-23-01	2 / 2	N/A	77
Antimony						0 / 2	0.23 - 0.24	0.12
Arsenic	1.4		1.5		PL-23-01	2 / 2	N/A	1.5
Barium	4.7		5.2		PL-23-01	2 / 2	N/A	5.0
Beryllium						0 / 2	0.02	0.010
Cadmium	0.11		0.12		PL-23-01	2 / 2	N/A	0.12
Calcium	1040		1090		PL-23-02	2 / 2	N/A	1065
Chromium	0.406	J	0.56	J	PL-23-01	2 / 2	N/A	0.48
Cobalt	0.457	J	0.53	J	PL-23-01	2 / 2	N/A	0.49
Copper	0.97	J	0.978	J	PL-23-02	2 / 2	N/A	1.0
Cyanide						0 / 2	0.45 - 0.533	0.25
Iron	938		1010		PL-23-02	2 / 2	N/A	974
Lead	3	J	3.3	J	PL-23-01	2 / 2	N/A	3.2
Magnesium	171		175		PL-23-01	2 / 2	N/A	173
Manganese	143		158		PL-23-01	2 / 2	N/A	151
Mercury						0 / 2	0.01	0.0050
Nickel	0.17		0.17		PL-23-01	1 / 2	0.16	0.13
Potassium	940		1150		PL-23-02	2 / 2	N/A	1045
Selenium						0 / 2	0.42	0.21
Silver						0 / 2	0.14 - 0.15	0.073
Sodium	825		843		PL-23-02	2 / 2	N/A	834
Thallium						0 / 2	0.33 - 0.35	0.17
Vanadium	0.61		0.78		PL-23-01	2 / 2	N/A	0.70
Zinc	19.7	J	22.3	J	PL-23-02	2 / 2	N/A	21
%MOISTURE	86.7		87.3		PL-23-02	2 / 2	N/A	87

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-219
PLANT TISSUE DATA HITS TABLE - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

	PL-23-01	PL-23-02
SVOCs (ug/Kg)		
No Detections		
PCB/Pesticides (ug/Kg)		
4,4'-DDD	5.2	4.7
4,4'-DDE	0.87 J	0.85 J
4,4'-DDT	0.78 J	0.98 U
alpha-Chlordane	0.43 J	0.45 J
Heptachlor	0.28 J	0.5 UJ
Metals (mg/Kg)		
Aluminum	83.9 J	69.3 J
Arsenic	1.5	1.4
Barium	5.2	4.7
Cadmium	0.12	0.11
Calcium	1040	1090
Chromium	0.56 J	0.406 J
Cobalt	0.53 J	0.457 J
Copper	0.97 J	0.978 J
Iron	938	1010
Lead	3.3 J	3 J
Magnesium	175	171
Manganese	158	143
Nickel	0.17	0.16 U
Potassium	940	1150
Sodium	825	843
Vanadium	0.78	0.61
Zinc	19.7 J	22.3 J
% MOISTURE	86.7	87.3

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TABLE 2-220
PLANT TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/Kg								
1,2,4-Trichlorobenzene						0 / 6	330	165
1,2-Dichlorobenzene						0 / 6	330	165
1,3-Dichlorobenzene						0 / 6	330	165
1,4-Dichlorobenzene						0 / 6	330	165
2,2'-oxybis(1-Chloropropane)						0 / 6	330	165
2,4,5-Trichlorophenol						0 / 6	790	395
2,4,6-Trichlorophenol						0 / 6	330	165
2,4-Dichlorophenol						0 / 6	330	165
2,4-Dimethylphenol						0 / 6	330	165
2,4-Dinitrophenol						0 / 6	790	395
2,4-Dinitrotoluene						0 / 6	330	165
2,6-Dinitrotoluene						0 / 6	330	165
2-Chloronaphthalene						0 / 6	330	165
2-Chlorophenol						0 / 6	330	165
2-Methylnaphthalene						0 / 6	330	165
2-Methylphenol						0 / 6	330	165
2-Nitroaniline						0 / 6	790	395
2-Nitrophenol						0 / 6	330	165
3,3'-Dichlorobenzidine						0 / 6	330	165
3-Nitroaniline						0 / 6	790	395
4,6-Dinitro-2-methylphenol						0 / 6	790	395
4-Bromophenyl-phenylether						0 / 6	330	165
4-Chloro-3-Methylphenol						0 / 6	330	165
4-Chloroaniline						0 / 6	330	165
4-Chlorophenyl-phenylether						0 / 6	330	165
4-Methylphenol						0 / 6	330	165
4-Nitroaniline						0 / 6	790	395
4-Nitrophenol						0 / 6	790	395
Acenaphthene						0 / 6	330	165
Acenaphthylene						0 / 6	330	165
Anthracene						0 / 6	330	165
Benzo(a)anthracene						0 / 6	330	165
Benzo(a)pyrene	77	J	77	J	PL-20-01	1 / 6	330	150
Benzo(b)fluoranthene	55	J	100	J	PL-20-01	4 / 6	330	103
Benzo(g,h,i)perylene						0 / 6	330	165
Benzo(k)fluoranthene	52	J	120	J	PL-20-01	3 / 6	330	123
bis (2-Chloroethoxy) methane						0 / 6	330	165
bis (2-Chloroethyl) Ether						0 / 6	330	165
bis (2-Ethylhexyl) phthalate						0 / 6	330	165
Butylbenzylphthalate						0 / 6	330	165
Carbazole						0 / 6	330	165
Chrysene	54	J	98	J	PL-20-01	3 / 6	330	119
Di-n-butylphthalate						0 / 6	330	165
Di-n-octylphthalate						0 / 6	330	165
Dibenz(a,h)anthracene						0 / 6	330	165
Dibenzofuran						0 / 6	330	165
Diethylphthalate						0 / 6	330	165
Dimethylphthalate						0 / 6	330	165
Fluoranthene	31	J	120	J	PL-20-01	6 / 6	N/A	54
Fluorene						0 / 6	330	165
Hexachlorobenzene						0 / 6	330	165
Hexachlorobutadiene						0 / 6	330	165
Hexachlorocyclopentadiene						0 / 6	330	165
Hexachloroethane						0 / 6	330	165
Indeno(1,2,3-cd)pyrene	63	J	63	J	PL-20-01	1 / 6	330	148
Isophorone						0 / 6	330	165
N-Nitroso-di-n-propylamine						0 / 6	330	165
N-nitrosodiphenylamine						0 / 6	330	165
Naphthalene						0 / 6	330	165
Nitrobenzene						0 / 6	330	165
Pentachlorophenol						0 / 6	790	395
Phenanthrene	25	J	38	J	PL-20-01	2 / 6	330	121
Phenol						0 / 6	330	165
Pyrene	33	J	110	J	PL-20-01	5 / 6	330	87

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TABLE 2-220
PLANT TISSUE DATA SUMMARY - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.58	J	1.1	J	PL-18-01	3 / 6	0.98	0.63
4,4'-DDE	0.36	J	1.2		PL-18-01	6 / 6	N/A	0.70
4,4'-DDT	0.56	J	0.56	J	PL-18-01	1 / 6	0.98 - 0.99	0.50
Aldrin						0 / 6	0.5 - 0.51	0.25
alpha-BHC	0.27	J	0.27	J	PL-20-01	1 / 6	0.5 - 0.51	0.26
alpha-Chlordane	0.84	J	2.3	J	PL-21-01	6 / 6	N/A	1.4
Aroclor-1016						0 / 6	4.9 - 5	2.5
Aroclor-1221						0 / 6	9.9 - 10	5.0
Aroclor-1232						0 / 6	4.9 - 5	2.5
Aroclor-1242						0 / 6	4.9 - 5	2.5
Aroclor-1248						0 / 6	4.9 - 5	2.5
Aroclor-1254						0 / 6	4.9 - 5	2.5
Aroclor-1260	5.6	J	8.9		PL-21-01	6 / 6	N/A	7.0
beta-BHC						0 / 6	0.5 - 0.51	0.25
delta-BHC						0 / 6	0.5 - 0.51	0.25
Dieldrin						0 / 6	0.98 - 0.99	0.49
Endosulfan I	0.43	J	0.43	J	PL-20-01	1 / 6	0.5 - 0.51	0.28
Endosulfan II	1.1	J	1.1	J	PL-21-01	1 / 6	0.98 - 0.99	0.59
Endosulfan sulfate						0 / 6	0.98 - 0.99	0.49
Endrin						0 / 6	0.98 - 0.99	0.49
Endrin aldehyde	0.63	J	2.9	J	PL-21-02	4 / 6	0.98 - 0.99	1.0
Endrin ketone						0 / 6	0.98 - 0.99	0.49
gamma-BHC (lindane)						0 / 6	0.5 - 0.51	0.25
gamma-Chlordane	0.32	J	0.56		PL-20-01	6 / 6	N/A	0.47
Heptachlor	0.33	J	0.37	J	PL-20-01	2 / 6	0.5 - 0.51	0.29
Heptachlor epoxide	0.44	J	0.44	J	PL-20-01	1 / 6	0.5 - 0.51	0.28
Methoxychlor						0 / 6	5 - 5.1	2.5
Toxaphene						0 / 6	50 - 51	25
Metals - mg/Kg								
Aluminum	154	J	348	J	PL-18-01	6 / 6	N/A	256
Antimony						0 / 6	0.17 - 0.24	0.10
Arsenic	2.9		15.9		PL-20-02	6 / 6	N/A	10
Barium	2.51		4.1		PL-18-01	6 / 6	N/A	3.4
Beryllium						0 / 6	0.02 - 0.04	0.015
Cadmium	0.42		0.78		PL-18-01	6 / 6	N/A	0.52
Calcium	1160		1420		PL-18-01	6 / 6	N/A	1255
Chromium	15	J	71.2	J	PL-18-01	6 / 6	N/A	31
Cobalt	0.61	J	2.2	J	PL-18-01	6 / 6	N/A	0.96
Copper	6.4	J	27.1	J	PL-18-01	6 / 6	N/A	16
Cyanide						0 / 6	0.41 - 0.58	0.25
Iron	828		2270		PL-18-01	6 / 6	N/A	1448
Lead	9.4	J	13.9	J	PL-20-01	6 / 6	N/A	12
Magnesium	177		238		PL-20-01	6 / 6	N/A	212
Manganese	29		109		PL-20-02	6 / 6	N/A	62
Mercury	0.04	J	0.29	J	PL-21-01	6 / 6	N/A	0.11
Nickel	0.48		1.5	J	PL-18-01	6 / 6	N/A	0.71
Potassium	500		1620		PL-20-02	6 / 6	N/A	969
Selenium	0.55	J	0.55	J	PL-21-01	1 / 6	0.251 - 0.54	0.27
Silver						0 / 6	0.106 - 0.15	0.064
Sodium	568		1420		PL-21-01	6 / 6	N/A	957
Thallium						0 / 6	0.25 - 0.35	0.15
Vanadium	0.9		2.1		PL-18-01	6 / 6	N/A	1.4
Zinc	76	J	149	J	PL-18-01	6 / 6	N/A	107
%MOISTURE	84.2		89.1		PL-20-02	6 / 6	N/A	87

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-221
PLANT TISSUE DATA HITS TABLE - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

	PL-18-01	PL-18-02	PL-20-01	PL-20-02	PL-21-01	PL-21-02
SVOCs (ug/Kg)						
Benzo(a)pyrene	330 U	330 U	77 J	330 UJ	330 U	330 U
Benzo(b)fluoranthene	55 J	79 J	100 J	55 J	330 U	330 U
Benzo(k)fluoranthene	52 J	68 J	120 J	330 UJ	330 U	330 U
Chrysene	330 U	54 J	98 J	66 J	330 U	330 U
Fluoranthene	36 J	43 J	120 J	64 J	31 J	31 J
Indeno(1,2,3-cd)pyrene	330 U	330 U	63 J	330 UJ	330 U	330 U
Phenanthrene	330 U	330 U	38 J	25 J	330 U	330 U
Pyrene	88 J	330 U	110 J	94 J	34 J	33 J
PCB/Pesticides (ug/Kg)						
4,4'-DDD	1.1 J	0.58 J	0.64 J	0.98 U	0.98 U	0.98 U
4,4'-DDE	1.2	0.36 J	0.63 J	0.57 J	0.62 J	0.81 J
4,4'-DDT	0.56 J	0.99 U	0.98 U	0.98 U	0.98 U	0.98 U
alpha-BHC	0.51 U	0.51 U	0.27 J	0.5 U	0.5 U	0.5 U
alpha-Chlordane	0.91	1 J	0.99 J	0.84 J	2.3 J	2.3 J
Aroclor-1260	7.1	5.6 J	5.8 J	5.6 J	8.9	8.9
Endosulfan I	0.51 U	0.51 U	0.43 J	0.5 U	0.5 U	0.5 U
Endosulfan II	0.99 U	0.99 U	0.98 U	0.98 U	1.1 J	0.98 U
Endrin aldehyde	0.99 U	0.67 J	0.98 J	0.98 U	0.63 J	2.9 J
gamma-Chlordane	0.51	0.43 J	0.56	0.32 J	0.53	0.46 J
Heptachlor	0.51 U	0.51 U	0.37 J	0.5 U	0.33 J	0.5 U
Heptachlor epoxide	0.51 U	0.51 U	0.44 J	0.5 U	0.5 U	0.5 U
Metals (mg/Kg)						
Aluminum	348 J	235 J	348 J	283 J	166 J	154 J
Arsenic	14.7	10.2	13.4	15.9	4.2	2.9
Barium	4.1	3.4	2.51	3.6	3.5	3.3
Cadmium	0.78	0.42	0.53	0.45	0.47	0.44
Calcium	1420	1220	1290	1260	1160	1180
Chromium	71.2 J	34.2 J	28.7 J	18 J	21.1 J	15 J
Cobalt	2.2 J	0.68 J	0.87 J	0.76 J	0.61 J	0.65 J
Copper	27.1 J	16.1 J	21.6 J	17.4 J	7.8 J	6.4 J
Iron	2270	1880	1120	1640	828	948
Lead	13.6 J	9.4 J	13.9 J	9.8 J	10.9 J	11.4 J
Magnesium	218	197	238	226	216 J	177
Manganese	49.8	59.6	93.4	109	30	29
Mercury	0.04 J	0.04 J	0.07 J	0.06 J	0.29 J	0.16 J
Nickel	1.5 J	0.65	0.6	0.501	0.53	0.48
Potassium	899	718	1390	1620	687	500
Selenium	0.52 UJ	0.5 UJ	0.54 UJ	0.251 UJ	0.55 J	0.3 UJ
Sodium	812	568	918	642	1420	1380
Vanadium	2.1	1.7	1.6	1.3	1	0.9
Zinc	149 J	76 J	103 J	81.9 J	117 J	113 J
% MOISTURE	88	86.5	88.2	89.1	87.5	84.2

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TABLE 2-222
SURFACE WATER DATA SUMMARY - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/L								
1,1,1-Trichloroethane						0 / 1	2	1.0
1,1,2,2-Tetrachloroethane						0 / 1	2	1.0
1,1,2-Trichloroethane						0 / 1	2	1.0
1,1-Dichloroethane						0 / 1	2	1.0
1,1-Dichloroethene						0 / 1	2	1.0
1,2-Dichloroethane						0 / 1	2	1.0
1,2-Dichloropropane						0 / 1	2	1.0
2-Butanone						0 / 1	2	1.0
2-Hexanone						0 / 1	2	1.0
4-Methyl-2-Pentanone						0 / 1	2	1.0
Acetone						0 / 1	5	2.5
Benzene						0 / 1	2	1.0
Bromodichloromethane						0 / 1	2	1.0
Bromoform						0 / 1	2	1.0
Bromomethane						0 / 1	2	1.0
Carbon Disulfide						0 / 1	2	1.0
Carbon Tetrachloride						0 / 1	2	1.0
Chlorobenzene						0 / 1	2	1.0
Chloroethane						0 / 1	2	1.0
Chloroform						0 / 1	2	1.0
Chloromethane						0 / 1	2	1.0
cis-1,2-Dichloroethene						0 / 1	2	1.0
cis-1,3-Dichloropropene						0 / 1	2	1.0
Dibromochloromethane						0 / 1	2	1.0
Ethylbenzene						0 / 1	2	1.0
Methylene Chloride						0 / 1	5	2.5
Styrene						0 / 1	2	1.0
Tetrachloroethene						0 / 1	2	1.0
Toluene						0 / 1	2	1.0
trans-1,2-Dichloroethene						0 / 1	2	1.0
trans-1,3-Dichloropropene						0 / 1	2	1.0
Trichloroethene						0 / 1	2	1.0
Vinyl Chloride						0 / 1	2	1.0
Xylene, m/p-						0 / 1	4	2.0
Xylene, o-						0 / 1	2	1.0

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TABLE 2-222
SURFACE WATER DATA SUMMARY - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
SVOCs - ug/L								
1,2,4-Trichlorobenzene						0 / 1	5	2.5
1,2-Dichlorobenzene						0 / 1	5	2.5
1,3-Dichlorobenzene						0 / 1	5	2.5
1,4-Dichlorobenzene						0 / 1	5	2.5
2,4,5-Trichlorophenol						0 / 1	12	6.0
2,4,6-Trichlorophenol						0 / 1	5	2.5
2,4-Dichlorophenol						0 / 1	5	2.5
2,4-Dimethylphenol						0 / 1	5	2.5
2,4-Dinitrophenol						0 / 1	12	6.0
2,4-Dinitrotoluene						0 / 1	5	2.5
2,6-Dinitrotoluene						0 / 1	5	2.5
2-Chloronaphthalene						0 / 1	5	2.5
2-Chlorophenol						0 / 1	5	2.5
2-Methylnaphthalene						0 / 1	5	2.5
2-Methylphenol						0 / 1	5	2.5
2-Nitroaniline						0 / 1	12	6.0
2-Nitrophenol						0 / 1	5	2.5
3,3'-Dichlorobenzidine						0 / 1	5	2.5
3-Nitroaniline						0 / 1	5	2.5
4,6-Dinitro-2-methylphenol						0 / 1	12	6.0
4-Bromophenyl-phenylether						0 / 1	5	2.5
4-Chloro-3-methylphenol						0 / 1	5	2.5
4-Chloroaniline						0 / 1	5	2.5
4-Chlorophenyl-phenylether						0 / 1	5	2.5
4-Methylphenol						0 / 1	5	2.5
4-Nitroaniline						0 / 1	12	6.0
4-Nitrophenol						0 / 1	12	6.0
Acenaphthene						0 / 1	5	2.5
Acenaphthylene						0 / 1	5	2.5
Anthracene						0 / 1	5	2.5
Benzo(a)anthracene						0 / 1	5	2.5
Benzo(a)pyrene						0 / 1	5	2.5
Benzo(b)fluoranthene						0 / 1	5	2.5
Benzo(g,h,i)perylene						0 / 1	5	2.5
Benzo(k)fluoranthene						0 / 1	5	2.5
Bis(2-Chloroethoxy)methane						0 / 1	5	2.5
Bis(2-Chloroethyl)ether						0 / 1	5	2.5
bis-(2-chloroisopropyl)ether						0 / 1	5	2.5
bis(2-Ethylhexyl)phthalate						0 / 1	5	2.5
Butylbenzylphthalate						0 / 1	5	2.5
Carbazole						0 / 1	5	2.5
Chrysene						0 / 1	5	2.5
Dibenz(a,h)anthracene						0 / 1	5	2.5
Dibenzofuran						0 / 1	5	2.5
Diethylphthalate						0 / 1	5	2.5
Dimethylphthalate						0 / 1	5	2.5
Di-n-Butylphthalate						0 / 1	5	2.5
Di-n-octylphthalate						0 / 1	5	2.5
Fluoranthene						0 / 1	5	2.5
Fluorene						0 / 1	5	2.5
Hexachlorobenzene						0 / 1	5	2.5
Hexachlorobutadiene						0 / 1	5	2.5
Hexachlorocyclopentadiene						0 / 1	12	6.0
Hexachloroethane						0 / 1	5	2.5
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5
Isophorone						0 / 1	5	2.5
Naphthalene						0 / 1	5	2.5
Nitrobenzene						0 / 1	5	2.5
N-Nitroso-di-n-propylamine						0 / 1	5	2.5
N-Nitrosodiphenylamine						0 / 1	5	2.5
Pentachlorophenol						0 / 1	12	6.0
Phenanthrene						0 / 1	5	2.5
Phenol						0 / 1	5	2.5
Pyrene						0 / 1	5	2.5

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TABLE 2-222
SURFACE WATER DATA SUMMARY - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
PCBs/Pesticides - ug/L								
4,4'-DDD						0 / 1	0.0089	0.0045
4,4'-DDE						0 / 1	0.0089	0.0045
4,4'-DDT						0 / 1	0.0089	0.0045
Aldrin						0 / 1	0.0089	0.0045
alpha-BHC						0 / 1	0.0089	0.0045
alpha-Chlordane						0 / 1	0.0089	0.0045
Aroclor-1016						0 / 1	0.044	0.022
Aroclor-1221						0 / 1	0.044	0.022
Aroclor-1232						0 / 1	0.044	0.022
Aroclor-1242						0 / 1	0.044	0.022
Aroclor-1248						0 / 1	0.044	0.022
Aroclor-1254						0 / 1	0.044	0.022
Aroclor-1260						0 / 1	0.044	0.022
beta-BHC						0 / 1	0.0089	0.0045
delta-BHC						0 / 1	0.0089	0.0045
Dieldrin						0 / 1	0.0089	0.0045
Endosulfan I						0 / 1	0.0089	0.0045
Endosulfan II						0 / 1	0.0089	0.0045
Endosulfan Sulfate						0 / 1	0.0089	0.0045
Endrin						0 / 1	0.0089	0.0045
Endrin Aldehyde						0 / 1	0.0089	0.0045
Endrin Ketone						0 / 1	0.0089	0.0045
gamma-BHC						0 / 1	0.0089	0.0045
gamma-Chlordane						0 / 1	0.0089	0.0045
Heptachlor						0 / 1	0.0089	0.0045
Heptachlor Epoxide						0 / 1	0.0089	0.0045
Methoxychlor						0 / 1	0.044	0.022
Toxaphene						0 / 1	0.089	0.045
Total Metals - ug/L								
Aluminum	62.2	J	99.7		IPSW-05-071401	4 / 17	54.4 - 203	70
Antimony						0 / 17	1.2 - 18.3	1.7
Arsenic	9.1		28		IPSW-05-071602	18 / 18	N/A	20
Barium	29.9		46.7		IPSW-05-071602	17 / 17	N/A	38
Beryllium						0 / 17	0.2 - 0.83	0.17
Cadmium						0 / 17	0.2 - 0.94	0.20
Calcium	39600		58400		IPSW-05-111901	17 / 17	N/A	47929
Chromium	2.4		14.2		IPSW-05-071602	15 / 17	5.7 - 8.8	7.4
Cobalt	0.94	J	2.2		IPSW-05-102502	8 / 17	0.7 - 3.3	1.2
Copper	2.8	J	8.7	J	IPSW-05-062002	11 / 17	4.5 - 10.7	5.0
Iron	1460		3460		IPSW-05-062002	17 / 17	N/A	2463
Lead	1.4	J	6.2		IPSW-05-071602	12 / 17	2.3 - 6.2	3.2
Magnesium	6550		9240		IPSW-05-111901	17 / 17	N/A	7883
Manganese	325		764		IPSW-05-071602	17 / 17	N/A	561
Mercury	0.1	J	0.1	J	IPSW-05-071401	1 / 17	0.04 - 0.16	0.054
Nickel	1.2	J	2.7	J	SW-MC-13-0	12 / 17	1.3 - 3.5	1.7
Potassium	4860	J	7810		IPSW-05-021502	16 / 16	N/A	6370
Selenium						0 / 17	1.1 - 4.8	1.6
Silver						0 / 17	0.5 - 1	0.36
Sodium	55800		128000	J	IPSW-05-021502	16 / 16	N/A	77613
Thallium						0 / 17	1.2 - 6	1.8
Vanadium	0.7	J	5.4	J	SW-MC-13-0	6 / 17	0.6 - 1.7	0.96
Zinc	23.6	J	153		IPSW-05-121701	17 / 17	N/A	63
Dissolved Metals - ug/L								
Aluminum						0 / 17	30.8 - 77.7	26
Antimony						0 / 17	1.2 - 100	4.1
Arsenic	3.8		11.4	J	IPSW-05-071401FT	13 / 17	5.2 - 13	5.6
Barium	27.7		44.4		IPSW-05-091002FT	17 / 17	N/A	35
Beryllium						0 / 17	0.2 - 4	0.28
Cadmium						0 / 17	0.2 - 1	0.21
Calcium	38000		58100		IPSW-05-111901FT	17 / 17	N/A	47800
Chromium	0.93	J	2.2		IPSW-05-091801FT	10 / 17	0.6 - 10	1.6
Cobalt	0.8	J	2.1		IPSW-05-102502FT	8 / 17	0.7 - 3	1.0
Copper	2.4	J	4		IPSW-05-102201FT	4 / 17	0.6 - 6	1.7

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TABLE 2-222
SURFACE WATER DATA SUMMARY - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Iron	134		1480		IPSW-05-071401FT	14 / 17	8.7 - 23.8	507
Lead	1.6	J	1.6	J	IPSW-05-041702FT	1 / 17	0.7 - 2.7	0.82
Magnesium	6250		9280		IPSW-05-111901FT	17 / 17	N/A	7866
Manganese	308		770		SW-MC-13-0	17 / 17	N/A	553
Mercury						0 / 17	0.1 - 0.2	0.055
Nickel	1.3	J	2.3	J	IPSW-05-102201FT	11 / 17	0.9 - 3.5	1.5
Potassium	4840	J	7690	J	IPSW-05-021502FT	16 / 16	N/A	6369
Selenium	2.7	J	2.7	J	IPSW-05-062002FT	1 / 17	1.9 - 4.8	1.7
Silver						0 / 17	0.5 - 2	0.39
Sodium	55000		123000	J	IPSW-05-021502FT	16 / 16	N/A	77131
Thallium						0 / 17	2 - 6	1.8
Vanadium						0 / 17	0.4 - 10	0.63
Zinc	3.9	J	121		IPSW-05-121701FT	16 / 17	25.1	41
Hardness (mg/L)	166		166		SW-MC-13-0	1 / 1	N/A	166
Total Organic Carbon (mg/L)	7.94		7.94		SW-MC-13-0	1 / 1	N/A	7.9

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-223
SURFACE WATER DATA SUMMARY - GAUGING STATION 06 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	65.8	J	363		IPSW-06-102201	2 / 16	19.6 - 362	65
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	3.8		18.9		IPSW-06-102201	16 / 16	N/A	11
Barium	31.7		43	J	IPSW-06-010402	16 / 16	N/A	38
Beryllium						0 / 16	0.2 - 0.76	0.16
Cadmium						0 / 16	0.2 - 0.8	0.19
Calcium	38900		52100		IPSW-06-111901	16 / 16	N/A	45988
Chromium	0.51	J	17.3		IPSW-06-111901	12 / 16	2.7 - 5.4	4.2
Cobalt	1	J	1.7	J	IPSW-06-102201	6 / 16	0.7 - 2.5	0.84
Copper	1.9	J	14.7		IPSW-06-102201	8 / 16	3.5 - 9.6	4.6
Iron	359	J	2600		IPSW-06-102201	16 / 16	N/A	1463
Lead	1.8	J	17.4	J	IPSW-06-111901	5 / 16	1.4 - 4.5	3.2
Magnesium	6650		9240		IPSW-06-010402	16 / 16	N/A	7840
Manganese	271		757		IPSW-06-071602	16 / 16	N/A	476
Mercury						0 / 16	0.1 - 0.22	0.055
Nickel	0.8	J	2.2	J	IPSW-06-111901	13 / 16	1.5 - 2.5	1.4
Potassium	4660	J	7350		IPSW-06-021502	16 / 16	N/A	5871
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	57600		139000	J	IPSW-06-021502	16 / 16	N/A	81819
Thallium						0 / 16	2.2 - 6	1.9
Vanadium	0.67	J	1.7	J	IPSW-06-111901	5 / 16	0.4 - 1.7	0.63
Zinc	26.3	J	105		IPSW-06-121701	16 / 16	N/A	58
Dissolved Metals - ug/L								
Aluminum						0 / 16	22 - 86.4	25
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	2.1	J	7.1	J	IPSW-06-071401FT	8 / 16	1.3 - 8	2.7
Barium	29	J	42.2	J	IPSW-06-010402FT	16 / 16	N/A	36
Beryllium						0 / 16	0.2 - 0.75	0.16
Cadmium						0 / 16	0.2 - 1	0.19
Calcium	37000		52200		IPSW-06-071602FT	16 / 16	N/A	45988
Chromium	1	J	2		IPSW-06-071401FT	10 / 16	0.6 - 3.3	1.2
Cobalt	0.75	J	1.3	J	IPSW-06-021502FT	6 / 16	0.7 - 2.5	0.77
Copper	0.68	J	3.5	J	IPSW-06-050802FT	7 / 16	2 - 5.6	2.1
Iron	110		961		IPSW-06-071401FT	11 / 16	8.7 - 254	293
Lead						0 / 16	0.7 - 2.6	0.77
Magnesium	6210		8980		IPSW-06-071602FT	16 / 16	N/A	7859
Manganese	277		749		IPSW-06-071602FT	16 / 16	N/A	454
Mercury	0.13	J	0.17	J	IPSW-06-080602FT	3 / 16	0.1 - 0.14	0.072
Nickel	1	J	2.2	J	IPSW-06-071401FT	10 / 16	0.9 - 3.4	1.4
Potassium	4430	J	7660		IPSW-06-021502FT	16 / 16	N/A	5929
Selenium	1.9	J	1.9	J	IPSW-06-031202FT	1 / 16	2.1 - 4.8	1.7
Silver						0 / 16	0.5 - 1	0.35
Sodium	58800		144000	J	IPSW-06-021502FT	16 / 16	N/A	81856
Thallium	3.6		3.6		IPSW-06-102502FT	1 / 16	2.2 - 6	2.0
Vanadium	0.64	J	0.64	J	IPSW-06-071401FT	1 / 16	0.4 - 1.7	0.38
Zinc	19.7	J	102		IPSW-06-121701FT	16 / 16	N/A	45

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-224
SURFACE WATER DATA SUMMARY - GAUGING STATION 07 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	87.9		111		IPSW-07-050802	2 / 16	43.6 - 216	61
Antimony						0 / 16	1.5 - 4	1.2
Arsenic	4.1		8.3		IPSW-07-080602	12 / 16	7.9 - 10.9	5.7
Barium	31.5		42.8		IPSW-07-041702	16 / 16	N/A	39
Beryllium						0 / 16	0.2 - 0.77	0.17
Cadmium						0 / 16	0.2 - 0.69	0.18
Calcium	34500		49900		IPSW-07-111901	16 / 16	N/A	43700
Chromium	1.9		5.7		IPSW-07-091002	11 / 16	2.2 - 4.3	3.1
Cobalt	0.85	J	1.9		IPSW-07-021502	3 / 16	0.7 - 2	0.64
Copper	3.5	J	7.6	J	IPSW-07-062002	9 / 16	4.3 - 8.7	4.5
Iron	779	J	1800		IPSW-07-062002	16 / 16	N/A	1127
Lead	1.6	J	5.6		IPSW-07-062002	8 / 16	2.2 - 5.8	2.7
Magnesium	5790		8510		IPSW-07-010402	16 / 16	N/A	7284
Manganese	227	J	591		IPSW-07-071602	16 / 16	N/A	348
Mercury						0 / 16	0.1 - 0.14	0.053
Nickel	1.1	J	2.4	J	IPSW-07-102201	12 / 16	1.4 - 2.8	1.4
Potassium	4180	J	6950		IPSW-07-021502	16 / 16	N/A	5738
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	56000		138000	J	IPSW-07-021502	16 / 16	N/A	83238
Thallium						0 / 16	2.2 - 6	1.8
Vanadium	0.71	J	1.2		IPSW-07-050802	3 / 16	0.6 - 1.7	0.61
Zinc	26		83.9		IPSW-07-121701	16 / 16	N/A	51
Dissolved Metals - ug/L								
Aluminum						0 / 16	19.6 - 74.4	25
Antimony						0 / 16	1.5 - 4	1.2
Arsenic	1.5	J	4.5	J	IPSW-07-071401FT	6 / 16	1.3 - 4.7	2.0
Barium	31.5	J	41.8	J	IPSW-07-010402FT	16 / 16	N/A	37
Beryllium						0 / 16	0.2 - 0.75	0.17
Cadmium						0 / 16	0.2 - 0.8	0.19
Calcium	36100		49600		IPSW-07-010402FT	16 / 16	N/A	43256
Chromium	0.66	J	2		IPSW-07-091801FT	9 / 16	0.6 - 2.5	0.90
Cobalt	0.7	J	0.82	J	IPSW-07-021502FT	2 / 16	0.44 - 2	0.49
Copper	0.93	J	4.9		IPSW-07-102201FT	8 / 16	2.6 - 6.4	2.5
Iron	143		699		IPSW-07-071401FT	11 / 16	15.6 - 163	247
Lead						0 / 16	0.7 - 2.5	0.77
Magnesium	6030		8720		IPSW-07-010402FT	16 / 16	N/A	7222
Manganese	188		531		IPSW-07-071602FT	16 / 16	N/A	313
Mercury						0 / 16	0.1 - 0.15	0.053
Nickel	1.2	J	2.2	J	IPSW-07-102201FT	12 / 16	1 - 3	1.4
Potassium	4420	J	7150		IPSW-07-021502FT	16 / 16	N/A	5709
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	58400		142000	J	IPSW-07-021502FT	16 / 16	N/A	82675
Thallium						0 / 16	2.2 - 6	1.9
Vanadium	0.57	J	0.57	J	IPSW-07-050802FT	1 / 16	0.4 - 1.7	0.39
Zinc	14.7	J	76.8		IPSW-07-121701FT	16 / 16	N/A	43

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-225
SURFACE WATER DATA SUMMARY - GAUGING STATION 08 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	119.5		259.175	J	IPSW-08-111901	3 / 16	43.6 - 129	65
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	2.45	J	6.55	J	IPSW-08-121701	11 / 16	3 - 8.3	4.1
Barium	38.65		62.9		IPSW-08-091002	16 / 16	N/A	49
Beryllium						0 / 16	0.2 - 0.73	0.17
Cadmium						0 / 16	0.2 - 0.67	0.18
Calcium	31300		48700		IPSW-08-111901	16 / 16	N/A	40191
Chromium	1.4	J	4.6	J	IPSW-08-111901	12 / 16	1.9 - 4.6	2.0
Cobalt	0.545	J	1.775	J	IPSW-08-021502	3 / 16	0.4 - 2	0.54
Copper	2.25	J	21.1	J	IPSW-08-062002	8 / 16	2.3 - 10.2	4.7
Iron	595.5		1567	J	IPSW-08-111901	16 / 16	N/A	980
Lead	1.8	J	10.3	J	IPSW-08-111901	8 / 16	1.5 - 8	2.9
Magnesium	5350		8395		IPSW-08-111901	16 / 16	N/A	6794
Manganese	147		425		IPSW-08-071602	16 / 16	N/A	257
Mercury						0 / 16	0.1 - 0.17	0.053
Nickel	0.59	J	1.7	J	IPSW-08-041702	10 / 16	1 - 2.6	1.1
Potassium	3960	J	7195		IPSW-08-021502	16 / 16	N/A	5308
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	58950		141000	J	IPSW-08-021502	16 / 16	N/A	80103
Thallium	5.2		5.2		IPSW-08-010402	1 / 16	2.2 - 6	2.0
Vanadium	0.52	J	1.3		IPSW-08-050802	6 / 16	0.65 - 1.7	0.66
Zinc	8	J	64.2	J	IPSW-08-021502	16 / 16	N/A	35
Dissolved Metals - ug/L								
Aluminum						0 / 16	19.6 - 74.2	24
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	1.6	J	3.25		IPSW-08-041702FT	6 / 16	1.3 - 5	1.7
Barium	36.75		63.05		IPSW-08-091002FT	16 / 16	N/A	47
Beryllium						0 / 16	0.2 - 0.74	0.17
Cadmium						0 / 16	0.2 - 0.77	0.18
Calcium	30100		47950		IPSW-08-111901FT	16 / 16	N/A	39753
Chromium	0.46	J	1.65	J	IPSW-08-102201FT	6 / 16	0.5 - 2.1	0.66
Cobalt	0.645	J	1.475	J	IPSW-08-021502FT	3 / 16	0.4 - 2	0.53
Copper	2.25	J	12.4		IPSW-08-062002FT	7 / 16	0.6 - 7.1	3.0
Iron	186.5		568		IPSW-08-071401FT	12 / 16	8.7 - 104	219
Lead						0 / 16	0.7 - 2.2	0.76
Magnesium	5050		8260		IPSW-08-111901FT	16 / 16	N/A	6730
Manganese	113.5	J	407		IPSW-08-071602FT	16 / 16	N/A	230
Mercury	0.1	J	0.1	J	IPSW-08-102201FT	1 / 16	0.1 - 0.15	0.056
Nickel	0.545	J	2	J	IPSW-08-102201FT	9 / 16	0.9 - 2.6	1.1
Potassium	3810	J	7160		IPSW-08-021502FT	16 / 16	N/A	5256
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	59550		140000	J	IPSW-08-021502FT	16 / 16	N/A	79463
Thallium						0 / 16	2.2 - 6	1.8
Vanadium	0.46	J	0.46	J	IPSW-08-091801FT	1 / 16	0.4 - 1.7	0.37
Zinc	4.95	J	58.35	J	IPSW-08-021502FT	15 / 16	13	27

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-226
SURFACE WATER DATA SUMMARY - GAUGING STATION 09 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum						0 / 16	19.6 - 107	27
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	1.5	J	3.8		IPSW-09-080602	5 / 16	1.7 - 6.3	1.8
Barium	31.6	J	42.3	J	IPSW-09-010402	16 / 16	N/A	35
Beryllium						0 / 16	0.2 - 0.86	0.17
Cadmium						0 / 16	0.2 - 0.69	0.18
Calcium	23000		35400		IPSW-09-041702	16 / 16	N/A	29463
Chromium	0.5	J	1.1	J	IPSW-09-091801	4 / 16	0.6 - 2	0.54
Cobalt	1.2	J	1.2	J	IPSW-09-071401	1 / 16	0.4 - 2	0.46
Copper	1.8	J	6.2	J	IPSW-09-062002	6 / 16	2 - 7.6	2.6
Iron	75.5	J	315		IPSW-09-071401	11 / 16	48.1 - 234	132
Lead						0 / 16	0.7 - 3.2	0.82
Magnesium	3890		5820		IPSW-09-041702	16 / 16	N/A	5016
Manganese	15.7		162		IPSW-09-031202	16 / 16	N/A	58
Mercury						0 / 16	0.1 - 0.15	0.053
Nickel	0.72	J	1.6	J	IPSW-09-102201	4 / 16	0.7 - 2.4	0.80
Potassium	3250	J	5990		IPSW-09-021502	16 / 16	N/A	4313
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	49900		122000		IPSW-09-031202	16 / 16	N/A	75788
Thallium						0 / 16	2.2 - 6	1.8
Vanadium	1.6		1.6		IPSW-09-071401	1 / 16	0.4 - 1.7	0.49
Zinc	2.5	J	33.3	J	IPSW-09-031202	11 / 16	0.7 - 8.6	11
Dissolved Metals - ug/L								
Aluminum						0 / 16	19.6 - 82.2	25
Antimony	1.8	J	1.8	J	IPSW-09-071602FT	1 / 16	1.5 - 4	1.3
Arsenic	1.8	J	4.9		IPSW-09-080602FT	4 / 16	1.7 - 5.2	1.7
Barium	28.5		39.7		IPSW-09-121701FT	15 / 16	35.6	33
Beryllium						0 / 16	0.2 - 0.75	0.17
Cadmium						0 / 16	0.2 - 0.47	0.17
Calcium	23000		35200		IPSW-09-041702FT	16 / 16	N/A	29031
Chromium	0.98	J	1.2	J	IPSW-09-071401FT	2 / 16	0.5 - 1.5	0.49
Cobalt	1.3	J	1.6		IPSW-09-021502FT	2 / 16	0.4 - 2	0.54
Copper	2	J	5.9		IPSW-09-062002FT	7 / 16	2 - 5.2	2.5
Iron						0 / 16	9.5 - 205	17
Lead						0 / 16	0.7 - 2.2	0.76
Magnesium	3810		5790		IPSW-09-041702FT	16 / 16	N/A	4945
Manganese	1.3		78.8		IPSW-09-031202FT	10 / 16	1.2 - 4.7	19
Mercury						0 / 16	0.1 - 0.43	0.062
Nickel	0.94	J	2.7	J	IPSW-09-071401FT	3 / 16	0.7 - 1.9	0.83
Potassium	3290	J	6300		IPSW-09-021502FT	16 / 16	N/A	4251
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	49800		122000	J	IPSW-09-021502FT	16 / 16	N/A	74931
Thallium						0 / 16	2.2 - 6	1.8
Vanadium	0.48	J	2		IPSW-09-071401FT	2 / 16	0.4 - 1.7	0.50
Zinc	1.6	J	29.8	J	IPSW-09-021502FT	11 / 16	0.7 - 10.3	8.5

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-227
SURFACE WATER DATA SUMMARY - GAUGING STATION 10 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	60.6	J	60.6	J	IPSW-10-071401	1 / 16	37.2 - 200	43
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	2.4	J	3.2		IPSW-10-041702	2 / 16	1.2 - 5.8	1.4
Barium	34.5		52.7	J	IPSW-10-010402	16 / 16	N/A	42
Beryllium						0 / 16	0.2 - 0.63	0.17
Cadmium						0 / 16	0.2 - 0.92	0.19
Calcium	24200		35500		IPSW-10-041702	16 / 16	N/A	30581
Chromium	0.66	J	1.6		IPSW-10-041702	9 / 16	0.6 - 3.2	1.0
Cobalt	0.74	J	0.74	J	IPSW-10-021502	1 / 16	0.4 - 2	0.44
Copper	1.7	J	3.4	J	IPSW-10-062002	6 / 16	1.8 - 6.5	2.2
Iron	107	J	521	J	IPSW-10-041702	11 / 16	60 - 228	183
Lead						0 / 16	0.7 - 3.9	0.95
Magnesium	4610		7590		IPSW-10-010402	16 / 16	N/A	6177
Manganese	12.9		244	J	IPSW-10-010402	16 / 16	N/A	95
Mercury	0.36		0.36		IPSW-10-102502	1 / 16	0.1 - 0.15	0.072
Nickel	0.85	J	1.8		IPSW-10-041702	4 / 16	0.9 - 2.4	0.82
Potassium	3540	J	6130		IPSW-10-021502	16 / 16	N/A	4581
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	54400		125000		IPSW-10-031202	16 / 16	N/A	82150
Thallium						0 / 16	2.2 - 6	1.8
Vanadium						0 / 16	0.4 - 1.7	0.42
Zinc	0.73	J	172		IPSW-10-031202	12 / 16	0.7 - 8.3	17
Dissolved Metals - ug/L								
Aluminum						0 / 16	19.6 - 91.2	26
Antimony						0 / 16	1.2 - 4	1.2
Arsenic	1.5	J	3.9	J	IPSW-10-121701FT	3 / 16	1.2 - 4.2	1.4
Barium	30.6		43.6	J	IPSW-10-010402FT	16 / 16	N/A	38
Beryllium						0 / 16	0.2 - 0.61	0.16
Cadmium						0 / 16	0.2 - 0.68	0.18
Calcium	24100		33400		IPSW-10-050802FT	16 / 16	N/A	29431
Chromium	0.5	J	1.4	J	IPSW-10-071401FT	6 / 16	0.5 - 2	0.66
Cobalt						0 / 16	0.4 - 2	0.40
Copper	1.1	J	8.6		IPSW-10-102201FT	6 / 16	1.5 - 5	2.4
Iron	20.1	J	20.1	J	IPSW-10-082301FT	1 / 16	8.7 - 143	16
Lead						0 / 16	0.7 - 2.2	0.77
Magnesium	4490		7130		IPSW-10-121701FT	16 / 16	N/A	5926
Manganese	1.5		164		IPSW-10-021502FT	14 / 16	1.1 - 2.3	40
Mercury						0 / 16	0.1 - 0.16	0.053
Nickel	0.93	J	1.7	J	IPSW-10-071401FT	3 / 16	0.7 - 2.2	0.75
Potassium	3280	J	6020		IPSW-10-021502FT	16 / 16	N/A	4373
Selenium						0 / 16	1.9 - 4.8	1.6
Silver						0 / 16	0.5 - 1	0.35
Sodium	51000		118000	J	IPSW-10-021502FT	16 / 16	N/A	79044
Thallium						0 / 16	2.2 - 6	1.8
Vanadium						0 / 16	0.4 - 1.7	0.39
Zinc	1.2	J	71.4		IPSW-10-091801FT	7 / 16	0.7 - 10.5	7.9

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-228
SURFACE WATER DATA HITS TABLE - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-05-010402	IPSW-05-021502	IPSW-05-031202	IPSW-05-041702	IPSW-05-050802	IPSW-05-062002	IPSW-05-071401	IPSW-05-071602	IPSW-05-080602
Total Metals (ug/L)									
Aluminum	98.2 J	197 U	57.3 UJ	125 U	91 U	166 U	99.7	199 U	174 U
Arsenic	19.5	14.2	9.1	15.8	13	23.9	21.8	28	24.1
Barium	43.4 J	39.2	33.9	36.6	29.9	42	41	46.7	37.4
Calcium	51100	46800	42000	41600	43500	40600	39600	54500	47000
Chromium	8.8 UJ	4.9	2.4	6.6	4.9	11.2	5.7 U	14.2	8.5
Cobalt	3.3 U	2.1	2 U	0.94 J	1.5 U	1.6	1.6	1.4 U	1.1 U
Copper	10.7 U	6.9 J	5.8 U	6.2	6.2 J	8.7 J	5.6 U	9 U	3.9 J
Iron	2710	2040	1460	1940 J	2170	3460	2880	3020	1950
Lead	6.2 UJ	3.8	1.8 J	3.8 J	2.3 U	4.7	2.6 J	6.2	4.4
Magnesium	8820	7480	7000	6650	7070	6550	6650	8990	7740
Manganese	641 J	488	325	386	464	643	519	764	539
Mercury	0.1 U	0.1 U	0.1 UJ	0.1 U	0.15 UJ	0.1 UJ	0.1 J	0.1 U	0.1 U
Nickel	3.5 U	1.3 U	1.6 J	1.7 J	1.9 U	2.2	1.4 U	1.5	1.2 J
Potassium	7180 J	7810	5640 J	6360	6270	6270 J	4860 J	6840 J	5500 J
Sodium	79400	128000 J	96800	76500	77300	70400	61200	82400	65600
Vanadium	1.7 UJ	0.98 J	1.7 U	0.86 U	0.7 J	1.1 U	1.1 J	1.2 U	1.5 U
Zinc	103	100 J	76.5	59.9 J	54.9 J	67.8 J	37.6	45.2 J	23.6 J
Dissolved Metals (ug/L)									
Arsenic	7.7	4.7 J	4.6	6.4 U	6.1	7.2 U	11.4 J	3.8	4.4
Barium	42.8 J	35.8	31.4	27.7	29.7	41.3	37.6	44.3	34.5
Calcium	52600	45500	40000	41500	46200	40800	38000	54800	45800
Chromium	3.6 UJ	0.6 U	1.1 J	0.93 J	1.1 U	1.9	2	2	1.3
Cobalt	2.6 U	1.4 J	2 U	0.86 J	1 UJ	1.5	0.8 J	1.2 U	0.71 UJ
Copper	6 U	4.3 U	3.1 UJ	2.2 UJ	2.9 J	2.4	2.4 J	2.3 U	0.6 UJ
Iron	830	489	659	511	865	927	1480	23.8 U	8.9 UJ
Lead	2.7 UJ	1.8 U	1.6 U	1.6 J	1.1 U	1.1 U	1.8 UJ	0.7 U	0.7 U
Magnesium	9030	7300	6670	6620	7500	6620	6250	9030	7520
Manganese	651 J	466	308	373	486	644	491	750	518
Nickel	3.5 U	1.3 U	1.6 J	1.9	1.6 UJ	0.9 U	2.1 J	1.3 J	1.4
Potassium	7390 J	7690	5350	6310	6670	6330 J	4840 J	6850 J	5330
Selenium	4.8 U	4.6 U	1.9 UJ	2.1 U	2.1 U	2.7 J	2.8 UJ	2.9 UJ	2.9 UJ
Sodium	81100	123000 J	91800	76100	82300	70000	59800	82900	64400
Zinc	92.2	80 J	74.8	34 J	41.4	31.4 J	25.4	11 J	3.9 J

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TABLE 2-228
SURFACE WATER DATA HITS TABLE - GAUGING STATION 05 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-05-082301	IPSW-05-091002	IPSW-05-091801	IPSW-05-102201	IPSW-05-102502	IPSW-05-111901	IPSW-05-121701	SW-MC-13-0
Total Metals (ug/L)								
Aluminum	66 J	119 U	54.4 UJ	77.7 UJ	94.3 UJ	203 U	172 U	62.2 J
Arsenic	26.1	23.8	19.1	19.7	14.3	23.8	24.8	26.7 J
Barium	34.6 J	45.7	36.7	32	33.7	33.9 J	38.3	43.4
Calcium	44000	55200	54500	51500	41900	58400	50200	52400
Chromium	6.7	8.9	6	5.2	6.2	12.3	9.4	10.6 J
Cobalt	0.7 UJ	1.6 U	1.2 J	1.2 J	2.2	1.2 J	1 UJ	3 U
Copper	7.1 U	6.1	4.5 U	5	5.1	6.7	5.6	2.8 J
Iron	2460 J	2440	2270	2230	2150	3050 J	2930 J	2710
Lead	4	2.9 U	2.8 UJ	3.3	2.4 U	5.8 J	4.9	1.4 J
Magnesium	7440	8910	9180	8220	6870	9240	8600	8600
Manganese	462	662	590	543	590	575 J	604	749
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.16 UJ	0.1 U	0.04 U
Nickel	1.5 J	2.6 U	2.1	2 J	2.1	2.2 J	2.4 J	2.7 J
Potassium	5810 J	5730 J	7080 J	6640 J	5210 J	6970 J	7750 J	NA
Sodium	66800	71800	73300	65200 J	55800	68300	103000	NA
Vanadium	0.6 UJ	1.2 U	0.78 J	0.9 U	0.95 UJ	1 J	0.9 UJ	5.4 J
Zinc	29	41.4 J	39.1	74	65.9	67.4	153	38.5 J
Dissolved Metals (ug/L)								
Arsenic	13 U	5.2 U	4.3	7.2	4.1 J	5.7 J	10.2	5
Barium	30.9 J	44.4	35.1 J	31	32.3	30.7 J	35.3	38
Calcium	42100	54800	54400	52700	41500	58100	49800	54000
Chromium	1.7 J	1.4 U	2.2	2.1	1.3 J	1.6 UJ	2.1 U	10 U
Cobalt	0.7 UJ	1.1 U	1 J	1.6 J	2.1	1.4 J	1 UJ	3 U
Copper	2.9 UJ	1.7 U	4.4 U	4	1.5 U	2 U	2 U	2 U
Iron	522	8.7 U	254	373	657	134	660	230
Lead	1.8 U	0.7 U	1.8 U	2.2 U	1.2 U	2.2 U	2.2 U	1 U
Magnesium	7060	8810	9200	8710	6810	9280	8510	8800
Manganese	430	652	585	549	580	559 J	594	770
Nickel	1.8 J	2 U	2.1	2.3 J	1.6 J	2.1 J	2.1 J	2 U
Potassium	5650 J	5650	7150 J	6860 J	5190 J	6950 J	7690 J	NA
Selenium	2.8 U	2.9 UJ	2.8 U	4.8 U	3 U	4.8 U	4.8 U	2 U
Sodium	64200	71200	74900	68200 J	55000	68200	101000	NA
Zinc	5.7 J	25.1 UJ	20.5 J	44.9	53.3	30.9	121	21

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TABLE 2-229
SURFACE WATER DATA HITS TABLE - GAUGING STATION 06 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-06-010402	IPSW-06-021502	IPSW-06-031202	IPSW-06-041702	IPSW-06-050802	IPSW-06-062002	IPSW-06-071401	IPSW-06-071602	IPSW-06-080602
Total Metals (ug/L)									
Aluminum	55 U	97.7 UJ	44 U	19.6 U	64.4 U	83.8 U	65.8 J	92.6 UJ	116 U
Arsenic	10	9.2	5.5	3.8	6.6	14.8	14.7	13.3	11.2
Barium	43 J	41.7	34.6	42.2	35.4	39.5	40.4	42.8	35.2
Calcium	51800	47400	38900	46400	45500	40300	39200	52000	44000
Chromium	5.4 UJ	2.6	2	0.51 J	2.7 U	4.7	4.7 U	4.9	3
Cobalt	2.5 U	1.3 J	2 U	0.7 U	0.82 UJ	1 J	1.1 J	1.2 U	0.79 UJ
Copper	9.6 U	5 J	5.6 U	3.5 U	5 J	5.6 J	5.2 U	4.8 U	1.9 J
Iron	1520	1310	982	359 J	1350	2180	2050	1510	1010
Lead	4.5 UJ	1.8 J	1.6 U	1.4 UJ	1.9 UJ	3.4	3	2.6 U	1.6 U
Magnesium	9240	7830	6660	7530	7500	6650	6690	8990	7580
Manganese	628 J	420	271	307	370	556	494	757	553
Nickel	2.5 UJ	1.4 J	1.2 J	1.8	1.5 UJ	1.4 J	1.6 J	0.8 J	1.2 J
Potassium	6710 J	7350	5110 J	6240	6160	5770 J	4660 J	6110 J	5030 J
Sodium	89500	139000 J	101000	100000	93100	80100	67500	84200	63100
Vanadium	1.2 UJ	0.8 U	1.7 U	0.4 U	0.73 J	0.87 U	0.77 J	0.64 UJ	0.86 U
Zinc	85.9	82.1 J	60.8	37 J	49.6 J	69.1 J	35.8	33.3 J	26.3 J
Dissolved Metals (ug/L)									
Arsenic	3 U	2.9 J	2.1 J	4 U	4	2.6 UJ	7.1 J	1.3 U	2.8
Barium	42.2 J	40	35	35.4	34.6	40.3	36.3	41.5	33.4
Calcium	49200	48000	41400	42500	45700	41800	37000	52200	43000
Chromium	3.3 UJ	0.6 U	1.4 J	1	1.4 U	1.7	2	1.2 J	1 J
Cobalt	2.5 U	1.3 J	2 U	1.2 J	0.7 U	1.2 J	0.75 J	1.3 U	0.82 U
Copper	5.6 U	4.3 U	3.7 U	3.1 UJ	3.5 J	2.4	2.7 J	3.6 U	0.68 J
Iron	254 U	277	431	320	500	588	961	27.6 U	9.8 UJ
Magnesium	8840	7880	7100	6930	7530	6880	6210	8980	7410
Manganese	539 J	431	277	315	355	563	442	749	532
Mercury	0.1 U	0.1 U	0.1 UJ	0.1 U	0.14 UJ	0.1 UJ	0.13 J	0.1 U	0.17 J
Nickel	3.4 U	1.3 U	1.9 J	1.9	1.8	0.9 U	2.2 J	1 J	1.2 J
Potassium	6540 J	7660	5260	6090	6190	6020 J	4430 J	6090 J	4890
Selenium	4.8 U	4.6 U	1.9 J	2.1 U	2.1 U	2.1 U	2.8 UJ	2.9 UJ	2.9 UJ
Sodium	85400	144000 J	102000	90000	93500	82400	64400	85700	61700
Thallium	5.2 U	6 U	3 UJ	2.2 U	2.2 U	2.2 U	4.1 UJ	2.6 U	2.6 U
Vanadium	1.2 UJ	0.8 U	1.7 U	0.4 U	0.4 U	0.4 U	0.64 J	0.4 U	0.58 UJ
Zinc	73.8	73.2 J	58.4 J	43.5 J	42.7	34.9 J	25	22 J	19.7 J

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TABLE 2-229
SURFACE WATER DATA HITS TABLE - GAUGING STATION 06 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-06-082301	IPSW-06-091002	IPSW-06-091801	IPSW-06-102201	IPSW-06-102502	IPSW-06-111901	IPSW-06-121701
Total Metals (ug/L)							
Aluminum	43.6 U	75.8 UJ	43.6 U	363	56.7 U	362 U	65.8 UJ
Arsenic	15	8.4	10.1	18.9	7.6	18	11.2
Barium	35.5 J	40.8	34.3	37.3	31.7	33.6 J	35.6
Calcium	45400	50300	48600	48300	39200	52100	46400
Chromium	3	3.5	3.2	13.4	1.9	17.3	3 U
Cobalt	0.7 UJ	0.75 UJ	0.7 U	1.7 J	1.4	1.3 J	1 UJ
Copper	4.7 U	4.7 U	4.6 U	14.7	3.1	13.8	3.6 J
Iron	1400 J	1110	1080	2600	1090	2560 J	1300 J
Lead	1.8 U	2.4 U	1.8 U	14.7	1.4 UJ	17.4 J	2.2 U
Magnesium	7780	8740	8530	8130	6730	8980	7880
Manganese	388	617	367	539	424	479 J	442
Nickel	1.4 J	1.6 U	1.8	1.8 J	1.6 J	2.2 J	2 J
Potassium	5650 J	5060 J	6240 J	6330 J	4700 J	6200 J	6620 J
Sodium	75600	68800	70400	66800 J	57600	68800	83600
Vanadium	0.6 UJ	0.69 UJ	0.67 J	1.6 J	0.7 U	1.7 J	0.9 UJ
Zinc	27.3	47.3 J	34.7	102	51.9	87.4	105
Dissolved Metals (ug/L)							
Arsenic	8 U	1.6 UJ	2.9	3 U	3.3 J	3 U	4.3 J
Barium	34.7 J	40.6	33.9 J	32.8	32.8	29 J	35.8
Calcium	45200	51900	50100	48000	40600	51500	47700
Chromium	1.4 J	1.1 UJ	2	1.9	1.6	1.7 UJ	1.4 U
Cobalt	0.7 UJ	0.86 U	0.8 J	1 U	1.2 J	1 U	1 UJ
Copper	3.2 U	3.1 U	4.8 U	3.5 J	1.8 J	2.4 J	2 U
Iron	355	8.7 U	140 U	355	375	110	190 J
Magnesium	7770	8980	8800	8320	6980	8900	8230
Manganese	377	627	363	439	436	376 J	450
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 UJ	0.16 J
Nickel	1.4 U	1.8 U	1.6	2 J	1.8 J	1.5 U	1.8 J
Potassium	5640 J	5210	6450 J	6380 J	4910 J	6260 J	6850 J
Selenium	2.8 U	2.9 UJ	2.8 U	4.8 U	3 U	4.8 U	4.8 U
Sodium	75500	71000	72300	67900 J	58800	68900	86200
Thallium	4.1 U	2.6 U	4.1 U	5.2 U	3.6	5.2 U	5.2 U
Vanadium	0.6 UJ	0.4 U	0.6 U	0.9 U	0.7 U	0.9 U	0.9 UJ
Zinc	20.4 J	38.9 J	41.8	36.3	52.7	36.1	102

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TABLE 2-230
SURFACE WATER DATA HITS TABLE - GAUGING STATION 07 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-07-010402	IPSW-07-021502	IPSW-07-031202	IPSW-07-041702	IPSW-07-050802	IPSW-07-062002	IPSW-07-071401	IPSW-07-071602	IPSW-07-080602
Total Metals (ug/L)									
Aluminum	55 U	214 U	45.9 UJ	102 U	111	151 U	87.9	78.5 UJ	216 U
Arsenic	5.7 J	6.6	4.1	7.5	6.1	10.5 U	9.4 UJ	6.5	8.3
Barium	41 J	41.9	38.3	42.8	39.3	42.6	40.7	42.7	37.6
Calcium	48500	45000	40500	46800	44700	42000	37200	48400	40100
Chromium	4.3 UJ	4.1	1.9	2.9	3 U	5.2	3.5 U	3.1	4.3
Cobalt	1.8 UJ	1.9	2 U	0.85 J	0.88 UJ	0.86 J	0.7 U	0.97 U	0.87 U
Copper	8.7 U	4.3 U	6.8 U	7.4	6 J	7.6 J	5.1 U	6 U	4.3 J
Iron	1080	1200	887	1210 J	1240	1800	1460	1130	1180
Lead	4 UJ	5.1	1.6 J	4.8 U	3.4 U	5.6	3.2	2.9 U	4.8
Magnesium	8510	7420	6920	7630	7280	6820	6270	8100	6650
Manganese	415 J	351	238	319	341	458	320	591	467
Nickel	2.8 UJ	1.4 J	1.4 J	1.4 J	1.9 U	1.2 J	1.4 U	1.1 J	1.8
Potassium	6180 J	6950	5190 J	6290	5930	6150 J	4520 J	5580 J	4880 J
Sodium	89400	138000 J	105000	101000	96600	89600	68900	89300	63600
Vanadium	1.1 UJ	0.8 U	1.7 U	1.1 U	1.2	1.5 U	0.71 J	1.1 U	1.3 U
Zinc	67.8	80.6 J	56.5 J	51.1 J	47.2 J	55.4 J	32.8	35.2 J	33.2 J
Dissolved Metals (ug/L)									
Arsenic	3 U	2.4 J	1.7 U	3.7	2.3 J	3.4 UJ	4.5 J	1.3 U	3.3
Barium	41.8 J	40.2	35.3	41.7	36.5	37.2	37.6	39.9	34.8
Calcium	49600	45800	38400	46900	43300	38300	36400	46300	40600
Chromium	2.5 UJ	0.6 U	0.9 U	0.66 J	1.3 U	0.94 J	1.3 J	1 J	0.73 J
Cobalt	1.9 UJ	0.82 J	2 U	0.7 U	0.77 UJ	0.7 U	0.7 U	0.57 UJ	0.44 UJ
Copper	6.4 U	4.3 U	5.9 U	3.8 UJ	3 J	3	2.6 J	2.9 U	0.93 J
Iron	163 U	249	331	371	394	396	699	22.9 U	18 U
Magnesium	8720	7560	6550	7620	7040	6320	6070	7770	6710
Manganese	420 J	350	224	311	320	383	299	531	322
Nickel	3 U	1.4 J	1 U	1.3 J	1.9 U	1.3 J	1.8 J	1.2 J	1.3 J
Potassium	6350 J	7150	4920	6330	5730	5640 J	4580 J	5390 J	4930
Sodium	90500	142000 J	101000	102000	93600	81300	69000	84400	64400
Vanadium	0.97 UJ	0.8 U	1.7 U	0.42 UJ	0.57 J	0.4 U	0.6 U	0.45 UJ	0.64 UJ
Zinc	59.8	64.4 J	47.3 J	37.4 J	32.6	33.8 J	22.9	58.9 J	14.7 J

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TABLE 2-230
SURFACE WATER DATA HITS TABLE - GAUGING STATION 07 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-07-082301	IPSW-07-091002	IPSW-07-091801	IPSW-07-102201	IPSW-07-102502	IPSW-07-111901	IPSW-07-121701
Total Metals (ug/L)							
Aluminum	43.6 U	169 U	72.2 UJ	130 U	126 U	64.3 UJ	91.2 UJ
Arsenic	10.9 U	7.9 U	6.3	5.6 J	4.8 J	4.7 J	5.3 J
Barium	37.3 J	40.5	39.2	38.5	31.5	32.8 J	35.3
Calcium	40700	47300	44200	47700	34500	49900	41700
Chromium	2.6	5.7	5	3.6	3.1	2.2 U	2.5 U
Cobalt	0.7 UJ	0.9 U	0.7 U	1 U	0.7 U	1 U	1 UJ
Copper	4.8 U	6.7	7.6 U	5.5	4.3	3.5 J	5.1
Iron	1010 J	1050	1020	951	978	779 J	1060 J
Lead	2.8	4.1 U	5.8 U	2.8 J	3.3 U	2.2 UJ	2.5 J
Magnesium	6820	7900	7420	7760	5790	8260	7000
Manganese	234	457	254	337	286	227 J	265
Nickel	1.4 J	1.7 U	1.9	2.4 J	1.7 J	1.7 J	1.8 J
Potassium	5170 J	4810 J	6240 J	6850 J	4180 J	6520 J	6370 J
Sodium	72200	72400	68000	70700 J	56000	69900	81200
Vanadium	0.6 UJ	1.2 U	0.96 J	0.9 U	0.7 U	0.9 U	0.9 UJ
Zinc	26	41.9 J	54.3	60.2	49.4	39	83.9
Dissolved Metals (ug/L)							
Arsenic	4.7 U	3.5 U	1.5 J	3 U	3 U	3 U	3 U
Barium	36.2 J	40.1	35.1 J	35.4	32	31.5 J	33.7
Calcium	40700	48900	41800	46800	36100	49200	43000
Chromium	1 J	0.85 UJ	2	1.6 J	0.98 J	1.2 UJ	1.1 U
Cobalt	0.7 UJ	0.58 UJ	0.7 U	1 U	0.7 J	1 U	1 UJ
Copper	6.1 U	2.7 U	2.6 U	4.9	2 J	2.7 J	4
Iron	254 J	15.6 UJ	139 U	243	373	143	316 J
Magnesium	6840	8070	7020	7830	6030	8170	7230
Manganese	222	345	188	311	295	219 J	269
Nickel	1.6 J	1.4 U	2.1	2.2 J	1.4 J	1.6 J	1.8 J
Potassium	5270 J	4950	5960 J	6600 J	4420 J	6590 J	6540 J
Sodium	73700	74400	64300	70300 J	58400	69800	83700
Vanadium	0.6 UJ	0.64 UJ	0.6 U	0.9 U	0.7 U	0.9 U	0.9 UJ
Zinc	19.2 J	42 J	42	51.3	41.1	38	76.8

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TABLE 2-231
SURFACE WATER DATA HITS TABLE - GAUGING STATION 08 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-08-010402	IPSW-08-021502	IPSW-08-031202	IPSW-08-041702	IPSW-08-050802	IPSW-08-062002	IPSW-08-071401	IPSW-08-071602	IPSW-08-080602
Total Metals (ug/L)									
Aluminum	119.5	121 UJ	62.5 UJ	65.7 U	129 U	102 U	121	86.6 UJ	108 UJ
Arsenic	5.6 J	5.3 J	2.45 J	5.65	3.35 J	4.8 U	8.3 UJ	5.8	6.35
Barium	56.55 J	47.85	38.65	44.5	41.4	43.3	41.3	54	49.7
Calcium	46800	45100	34650	42150	40150	36950	31300	46100	39050
Chromium	4.6 UJ	1.9	1.7 J	1.8	2.3 U	2.75	3.2 U	2.1	1.4
Cobalt	1.4 UJ	1.775 J	2 U	0.7 U	0.7 U	0.545 J	0.7 U	0.61 UJ	0.4 U
Copper	10.2 U	3.525 J	6.9 U	5.3 U	5.75 J	21.1 J	7.4 U	3.3 U	2.25 J
Iron	1060	949.5	760.5	1020 J	1150	1185	1350	1050	595.5
Lead	8 UJ	3.25 J	2.8 J	3.5 U	4.1 U	3.95	4.9	3.6 U	1.7 U
Magnesium	8155	7445	5945	6845	6525	5910	5350	7800	6815
Manganese	307.5 J	305	191.5	261	266.5	277	217	425	186.5
Nickel	2.6 UJ	1.55 J	1 U	1.7 J	1.6 UJ	1.05 J	1.4 U	1.1 J	0.59 J
Potassium	5770 J	7195	4775 J	6040	5665	5805 J	3960 J	5400 J	4495 J
Sodium	89100	141000 J	96200	95850	90250	78000	61800	85300	67350
Thallium	5.2	6 U	3 UJ	2.2 U	2.2 U	2.2 U	4.1 U	2.6 U	2.6 U
Vanadium	1.4 UJ	0.655 J	1.7 U	0.71 UJ	1.3	0.99 U	0.97 J	1.3 U	1.1 U
Zinc	61.4	64.2 J	37 J	35 J	27.95 J	33.2 J	24.2 J	16.1 J	8 J
Dissolved Metals (ug/L)									
Arsenic	3 U	2.4 U	1.7 U	3.25	1.6 J	2.1 UJ	2.6 J	1.3 U	2.1 J
Barium	52.35 J	46.05	36.75	42.95	39.9	37.7	38.2	52.6	48.3
Calcium	46650	44650	34750	41850	39850	33550	30100	45600	38650
Chromium	2.1 UJ	0.6 U	0.9 U	0.5 U	0.79 UJ	0.5 U	1 U	0.66 J	0.46 J
Cobalt	1.5 UJ	1.475 J	2 U	0.645 J	0.7 U	0.7 U	0.7 U	0.57 UJ	0.4 U
Copper	7.1 U	4.3 U	5.3 U	3.2 UJ	3 J	12.4	3.9	1.9 U	0.6 UJ
Iron	104 U	209.5	227	378.5	311.5	272	568	21.6 U	20.6 U
Magnesium	8160	7350	5925	6785	6455	5405	5050	7700	6740
Manganese	286 J	298	177.5	251.5	256	238	194	407	167
Mercury	0.1 U	0.1 U	0.1 UJ	0.1 U	0.13 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U
Nickel	2.6 UJ	1.3 U	1.8 J	1.35 J	0.9 U	1.1 J	1.5 J	0.76 J	0.545 J
Potassium	5815 J	7160	4770	6000	5585	5310 J	3810 J	5320 J	4440
Sodium	89050	140000 J	96300	94750	89650	70400	60300	84500	66700
Vanadium	0.9 U	0.8 U	1.7 U	0.4 U	0.4 U	0.4 U	0.6 U	0.47 UJ	0.72 UJ
Zinc	49.35	58.35 J	28.95 J	21.1 J	17	20 J	16.1 J	10.9 J	4.95 J

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TABLE 2-231
SURFACE WATER DATA HITS TABLE - GAUGING STATION 08 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-08-082301	IPSW-08-091002	IPSW-08-091801	IPSW-08-102201	IPSW-08-102502	IPSW-08-111901	IPSW-08-121701
Total Metals (ug/L)							
Aluminum	43.6 U	90.9 UJ	43.6 U	55 U	66.9 UJ	259.175 J	115 U
Arsenic	5.9 U	3 U	4.7	2.55 J	3 U	5.4 J	6.55 J
Barium	47.35 J	62.9	49.85	54.85	43.25	61 J	40.3
Calcium	37350	45450	35550	45250	35100	48700	33400
Chromium	2.35	2	1.85 J	1.4 J	1.65	4.6 J	1.9 U
Cobalt	0.7 UJ	0.4 U	0.7 U	1 U	0.7 U	0.8 J	1 UJ
Copper	2.9 UJ	2.3 U	5.6 U	4.35	2.75 J	8.4 J	5.15
Iron	1001 J	896.5	695.5	757.5	868.5	1567 J	770.5 J
Lead	3.7	2.1 U	2.1 UJ	1.8 J	1.5 UJ	10.3 J	3.15
Magnesium	6360	7755	6200	7450	5980	8395	5780
Manganese	196.5	299.5	147	205	288	347 J	186
Nickel	1.15 J	1.4 U	1.15 J	1.5 U	1.3 J	1.575 J	1.175 J
Potassium	4695 J	4420 J	4940 J	6350 J	4080 J	5980 J	5365 J
Sodium	68000	73100	58950	69000 J	59050	74800	73900
Thallium	4.1 U	2.6 UJ	4.1 U	5.2 U	2.4 U	5.2 U	5.2 U
Vanadium	0.52 J	0.65 UJ	0.64 J	0.9 U	0.96 UJ	1.225 J	0.9 UJ
Zinc	19.3 J	21.275 J	18.55 J	33.25 J	40.5	60.65	62.05
Dissolved Metals (ug/L)							
Arsenic	5 U	1.3 U	1.8 J	3 U	3 U	3 U	3 J
Barium	45.05 J	63.05	55.85 J	52.25	42.8	55.25 J	39.6
Calcium	36450	45850	36050	44550	35350	47950	34200
Chromium	1 J	0.68 UJ	1.55 J	1.65 J	0.69 J	1.1 UJ	0.9 U
Cobalt	0.7 UJ	0.4 U	0.7 U	1 U	0.7 J	1 U	1 UJ
Copper	3 UJ	1.4 U	4.7 U	4.05 J	2.55 J	2.25 J	3.7 J
Iron	258.5 J	8.7 U	234.5	255.5	340.5	186.5	189.5 J
Magnesium	6215	7865	6300	7530	6020	8260	5920
Manganese	182.5	296	137.5	197.5	289	113.5 J	182.5
Mercury	0.1 U	0.1 U	0.1 U	0.1 J	0.1 U	0.15 UJ	0.1 U
Nickel	1.4 U	1.2 UJ	1.8	2 J	1.2 J	1.5 U	1.5 U
Potassium	4590 J	4510	5055 J	6205 J	4115 J	5915 J	5490 J
Sodium	67200	74250	59550	68400 J	60400	74200	75750
Vanadium	0.6 UJ	0.4 U	0.46 J	0.9 U	0.7 U	0.9 U	0.9 UJ
Zinc	13.3 J	13 UJ	22.7 J	34.75	36.9	29.7	56.5 J

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TABLE 2-232
SURFACE WATER DATA HITS TABLE - GAUGING STATION 09 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-09-010402	IPSW-09-021502	IPSW-09-031202	IPSW-09-041702	IPSW-09-050802	IPSW-09-062002	IPSW-09-071401	IPSW-09-071602	IPSW-09-080602
Total Metals (ug/L)									
Arsenic	3 U	2.4 U	1.7 U	2 U	3.2 J	2 U	1.9 UJ	1.5 J	3.8
Barium	42.3 J	37	36.7	37	33.7	31.6	35.2	32.5	33.3
Calcium	31300	31400	30200	35400	32700	29100	23000	30900	28500
Chromium	2 UJ	0.6 U	0.9 U	0.64 J	0.87 UJ	0.5 J	1 U	0.88 J	0.6 U
Cobalt	1.3 UJ	0.7 U	2 U	0.7 U	0.7 U	0.7 U	1.2 J	0.4 U	0.4 U
Copper	7.6 U	4.3 U	5.5 U	3.4 U	2.7 J	6.2 J	5.7 U	4.4 U	2.3 J
Iron	234 U	120 U	245	208 J	183	186 U	315	163	130
Magnesium	5420	5280	5340	5820	5370	4600	3890	5230	4930
Manganese	84.1 J	111	162	70.4	64.3	44	98.4	37	27.5
Nickel	2.4 UJ	1.3 U	1.1 J	1.1 J	1.8 U	0.9 U	1.4 U	0.7 U	0.72 J
Potassium	4600 J	5990	4660 J	5390	4960	4910 J	3250 J	4090 J	3730 J
Sodium	86900	116000 J	122000	105000	92300	64000	49900	70800	60900
Vanadium	1.2 UJ	0.8 U	1.7 U	0.4 U	0.4 U	0.47 UJ	1.6	0.64 UJ	1.3 U
Zinc	24.8	33.2 J	33.3 J	17.5 J	15.7 J	8.6 UJ	6.7 J	4.2 J	0.7 UJ
Dissolved Metals (ug/L)									
Antimony	3.7 U	4 U	1.5 U	2.2 U	2.2 U	2.2 U	2 UJ	1.8 J	1.9 UJ
Arsenic	3 U	2.4 U	1.7 U	2 U	2 U	2 U	2.2 J	2.3 J	4.9
Barium	37.9 J	37.2	34.1	35.7	31.5	28.5	35.3	31.1	30.2
Calcium	29400	32800	29300	35200	31300	26800	23000	30100	26600
Chromium	1.5 UJ	0.6 U	0.9 U	0.5 U	0.87 UJ	0.5 U	1.2 J	0.6 U	0.6 U
Cobalt	1 U	1.6	2 U	0.7 U	0.7 U	0.7 U	1.3 J	0.4 U	0.4 U
Copper	5.2 U	4.3 U	4 U	3.2 UJ	2.5 J	5.9	5.4	4.1 U	2.1 J
Magnesium	5080	5500	5180	5790	5140	4270	3810	5100	4600
Manganese	16.3 J	62.7	78.8	21.3	37.4	5.2	67.4	5.8	1.9 U
Nickel	1.9 UJ	1.3 U	1 U	1.2 J	1.5 UJ	0.9 U	2.7 J	0.94 J	0.7 U
Potassium	4330 J	6300	4520	5370	4760	4500 J	3290 J	4010 J	3440
Sodium	82200	122000 J	118000	105000	88100	58700	50400	68300	57300
Vanadium	0.9 U	0.8 U	1.7 U	0.4 U	0.48 J	0.45 UJ	2	0.64 UJ	1 U
Zinc	17.4 J	29.8 J	25.4 J	10.3 UJ	12.3	5.6 UJ	6 J	4 J	0.7 UJ

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TABLE 2-232
SURFACE WATER DATA HITS TABLE - GAUGING STATION 09 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-09-082301	IPSW-09-091002	IPSW-09-091801	IPSW-09-102201	IPSW-09-102502	IPSW-09-111901	IPSW-09-121701
Total Metals (ug/L)							
Arsenic	3.4 U	6.3 U	1.5 J	3 U	3 U	3 U	3.5 J
Barium	31.6 J	36.1	32.6	36.9	33.1	36.7 J	39.4
Calcium	24900	30900	25000	29100	28900	28900	31200
Chromium	1 U	0.6 U	1.1 J	0.9 U	0.8 U	0.91 UJ	0.9 U
Cobalt	0.7 UJ	0.4 U	0.7 U	1 U	0.7 U	1 U	1 UJ
Copper	6.3 U	2.1 U	2.3 UJ	3.3 J	1.8 J	3.5 J	2 U
Iron	150 J	73.7 U	48.1 U	92	112	115 J	75.5 J
Magnesium	4150	5480	4370	4890	5070	4960	5450
Manganese	38.6	17.5	15.7	24.9	30.4	50.5 J	59.4
Nickel	1.4 U	1.3 UJ	1.4 U	1.6 J	1 U	1.5 U	1.5 U
Potassium	3440 J	3600 J	3700 J	4100 J	3730 J	4280 J	4570 J
Sodium	49900	63500	52600	63200 J	65000	71600	79000
Vanadium	0.6 UJ	0.85 U	0.6 U	0.9 U	0.7 U	0.9 U	0.9 UJ
Zinc	2.5 J	4.6 UJ	0.7 UJ	2.7 J	4.4 U	10.8 J	12.4 J
Dissolved Metals (ug/L)							
Antimony	1.7 U	2.8 UJ	1.7 U	3.7 UJ	1.5 UJ	3.7 U	3.7 U
Arsenic	5.2 U	2.9 U	1.8 J	3 U	3 U	3 U	3 U
Barium	29.3 J	35.6 U	32.4 J	36.2	31.9	34.9 J	39.7
Calcium	24700	31100	25300	29600	28800	28600	31900
Chromium	1 U	0.6 U	1 U	0.98 J	0.8 U	0.9 U	0.9 U
Cobalt	0.7 UJ	0.4 U	0.7 U	1 U	0.7 U	1 U	1 UJ
Copper	3.4 U	2.4 U	4 U	3.3 J	2.1 J	2 J	2 U
Magnesium	4130	5530	4420	5080	5010	4870	5610
Manganese	5.1	1.3	1.3 U	1.2 U	1.7 U	1.8 UJ	4.7 U
Nickel	1.4 U	1.2 UJ	1.4 U	1.5 U	1 U	1.5 U	1.5 U
Potassium	3480 J	3610	3710 J	4120 J	3710 J	4190 J	4670 J
Sodium	49800	63700	54000	64800 J	65500	70800	80300
Vanadium	0.6 UJ	0.65 UJ	0.6 U	0.9 U	0.73 UJ	0.9 U	0.9 UJ
Zinc	1.6 J	0.7 UJ	2.4 J	10.1 J	2.4 U	8.6 J	9.2 J

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TABLE 2-233
SURFACE WATER DATA HITS TABLE - GAUGING STATION 10 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-10-010402	IPSW-10-021502	IPSW-10-031202	IPSW-10-041702	IPSW-10-050802	IPSW-10-062002	IPSW-10-071401	IPSW-10-071602	IPSW-10-080602
Total Metals (ug/L)									
Aluminum	55 U	84.4 UJ	44 U	124 U	37.2 UJ	66.4 U	60.6 J	200 U	145 U
Arsenic	3 U	2.4 U	1.7 U	3.2	2 U	2 U	2.4 U	1.3 U	2.4 J
Barium	52.7 J	43.4	43.8	45.8	39.3	34.6	34.5	36.8	38.9
Calcium	34700	31500	30600	35500	32800	29700	24200	29100	29200
Chromium	3.2 UJ	0.6 U	1.2 J	1.6	1.1 U	0.66 J	3 U	1.4	1.1 J
Cobalt	1.5 UJ	0.74 J	2 U	0.7 U	0.7 U	0.7 U	0.7 U	0.4 U	0.4 U
Copper	6.5 U	4.3 U	5.5 U	5 U	2.6 J	3.4 J	5.4 U	3.4 U	1.7 J
Iron	228 U	166 U	252	521 J	111	171 U	331	377	169
Magnesium	7590	6460	6540	6620	6000	5160	4610	5510	5590
Manganese	244 J	208	181	205	44.2	53.9	46.4	44.6	25.4
Mercury	0.1 U	0.1 U	0.1 UJ	0.1 U	0.15 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U
Nickel	2.4 UJ	1.3 U	1 U	1.8	0.9 U	0.9 U	1.4 U	0.85 J	0.9 J
Potassium	5140 J	6130	5010 J	5730	5140	5150 J	3540 J	4060 J	3830 J
Sodium	96000	121000 J	125000	121000	102000	69000	54400	69400	65600
Zinc	6.3 J	14.6 J	172	27.2 J	11.9 J	8.3 UJ	6 J	6.8 J	2.9 J
Dissolved Metals (ug/L)									
Arsenic	3 U	2.4 U	1.7 U	2 U	2 U	2 U	1.2 UJ	1.3 U	1.6 J
Barium	43.6 J	41.1	38.6	38.8	38	30.6	33.7	33.9	36.8
Calcium	29500	31000	28500	33300	33400	27300	24500	28600	28900
Chromium	2 UJ	0.6 U	0.9 U	0.5 J	0.78 UJ	0.5 U	1.4 J	0.77 J	0.6 U
Copper	5 U	4.3 U	3.7 U	3 UJ	2.1 J	3.4	4	2.5 U	1.1 J
Iron	62.2 U	18 U	23.8 U	9.5 U	9.5 U	9.5 U	143 U	25.6 U	9.3 UJ
Magnesium	6540	6350	6020	6170	6080	4680	4540	5360	5490
Manganese	156 J	164	84	57.6	11.7	7.8	15.8	6.9	5.7
Nickel	2.2 UJ	1.3 U	1 U	0.93 J	1.6 UJ	0.9 U	1.7 J	0.7 U	0.7 U
Potassium	4460 J	6020	4580	5310	5210	4680 J	3620 J	3940 J	3740
Sodium	83600	118000 J	116000	112000	104000	63000	55400	68600	64900
Zinc	3.7 J	10.5 UJ	8.1 J	7.6 UJ	7.2 U	12.3 J	9.4 J	0.7 UJ	0.7 UJ

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TABLE 2-233
SURFACE WATER DATA HITS TABLE - GAUGING STATION 10 - BASEFLOW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-10-082301	IPSW-10-091002	IPSW-10-091801	IPSW-10-102201	IPSW-10-102502	IPSW-10-111901	IPSW-10-121701
Total Metals (ug/L)							
Aluminum	43.6 U	151 U	43.6 U	72.5 UJ	56.7 U	69.6 UJ	57.7 UJ
Arsenic	5.8 U	1.3 U	1.2 U	3 U	3 U	3 U	3 U
Barium	35.6 J	43.3	40.3	45.8	43.7	43.8 J	46.5
Calcium	27100	31600	27500	31900	30700	31100	32100
Chromium	1.1 J	1.2	1.4 J	1 J	0.8 U	2.2 U	0.9 U
Cobalt	0.7 UJ	0.4 U	0.7 U	1 U	0.7 U	1 U	1 UJ
Copper	4 U	1.8 U	3 UJ	3 J	1.7 J	2 J	2 U
Iron	107 J	60 U	171 U	153	127	145 J	239 J
Magnesium	5000	6580	5820	6790	6400	6830	7330
Manganese	32.2	12.9	18.2	38.6	65.1	76.8 J	227
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.36	0.13 UJ	0.1 U
Nickel	1.4 U	1.1 UJ	1.6	1.5 U	1 U	1.5 U	1.5 U
Potassium	3660 J	3780 J	4050 J	4540 J	3980 J	4690 J	4870 J
Sodium	56000	67800	59400	71000 J	71700	79100	86000
Zinc	0.73 J	0.7 UJ	2.1 J	1.1 UJ	1.1 U	16.1 J	1.3 J
Dissolved Metals (ug/L)							
Arsenic	4.2 U	1.3 UJ	1.5 J	3 U	3 U	3 U	3.9 J
Barium	31.1 J	42.4	39.4 J	42.8	41.1	39.6 J	41.7
Calcium	24100	31600	27700	31200	30200	29800	31300
Chromium	1 J	0.83 UJ	1.4 J	1.1 J	0.8 U	0.9 U	0.9 U
Copper	4.5 U	2.3 U	3.2 U	8.6	1.5 U	3.9 J	2 U
Iron	20.1 J	8.7 U	57.8 U	22.6 U	12.5 U	22.6 U	22.6 UJ
Magnesium	4490	6540	5870	6760	6280	6520	7130
Manganese	1.1 U	1.5	3.1	6.1	5.3	2.3 UJ	106
Nickel	1.4 U	0.7 U	1.4	1.5 U	1 U	1.5 U	1.5 U
Potassium	3280 J	3750	4120 J	4350 J	3880 J	4420 J	4600 J
Sodium	51000	67500	60100	69900 J	70800	76300	83600
Zinc	0.7 UJ	5.9 UJ	71.4	2 J	1.1 U	1.2 J	1.1 UJ

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TABLE 2-234
SURFACE WATER DATA SUMMARY - GAUGING STATION 05 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum						0 / 6	59.1 - 241	85
Antimony	3.9		3.9		IPSW-05-092502	1 / 6	1.7 - 3.9	1.8
Arsenic	11.5		23.3		IPSW-05-051502	6 / 6	N/A	15
Barium	23.2		40.7		IPSW-05-092502	6 / 6	N/A	30
Beryllium						0 / 6	0.2 - 0.5	0.13
Cadmium						0 / 6	0.25 - 0.46	0.18
Calcium	19700		34600		IPSW-05-092502	6 / 6	N/A	26275
Chromium	4.2		12.1		IPSW-05-042602	5 / 6	2.6	7.0
Cobalt	2.2		2.2		IPSW-05-101802	1 / 6	0.75 - 2.4	0.97
Copper	8.4		12.8	J	IPSW-05-042602	3 / 6	6.3 - 10.5	7.1
Iron	1150		2210		IPSW-05-051502	6 / 6	N/A	1654
Lead	4.4		6	J	IPSW-05-072502	3 / 6	2.5 - 6.4	3.6
Magnesium	3020		5230		IPSW-05-092502	6 / 6	N/A	3998
Manganese	124		529		IPSW-05-101802	6 / 6	N/A	238
Mercury	0.13	J	0.13	J	IPSW-05-051502	1 / 6	0.1	0.063
Nickel	1.5		3		IPSW-05-101802	3 / 6	0.9 - 3.3	1.7
Potassium	2930		5060	J	IPSW-05-092502	6 / 6	N/A	3912
Selenium						0 / 6	2.1 - 3	1.3
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	24400		44800		IPSW-05-042602	6 / 6	N/A	36417
Thallium						0 / 6	2.2 - 4.9	1.6
Vanadium	1.1		2.6		IPSW-05-072502	2 / 6	0.67 - 2.3	1.2
Zinc	53.9	J	108		IPSW-05-083102	6 / 6	N/A	79
Dissolved Metals - ug/L								
Aluminum						0 / 6	7.6 - 95.1	21
Antimony	2.8	J	2.8	J	IPSW-05-051502FT	1 / 6	1.9 - 3.7	1.6
Arsenic	2.2	J	12.6		IPSW-05-051502FT	3 / 6	2.5 - 3	3.5
Barium	18.2		31.4		IPSW-05-092502FT	6 / 6	N/A	25
Beryllium						0 / 6	0.1 - 1	0.16
Cadmium						0 / 6	0.2 - 0.47	0.18
Calcium	18600		34700		IPSW-05-092502FT	6 / 6	N/A	26150
Chromium	1.35		1.9		IPSW-05-101802FT	3 / 6	1.3 - 1.8	1.2
Cobalt	1.8		1.8		IPSW-05-101802FT	1 / 6	0.44 - 0.7	0.56
Copper	4.5		4.5		IPSW-05-092502FT	1 / 6	2.3 - 4.3	2.2
Iron	60.7		968		IPSW-05-051502FT	5 / 6	88.4	300
Lead						0 / 6	0.7 - 2.3	0.75
Magnesium	2820		5240		IPSW-05-101802FT	6 / 6	N/A	3959
Manganese	70.3		498		IPSW-05-101802FT	6 / 6	N/A	192
Mercury						0 / 6	0.1	0.050
Nickel	1.4	J	2.2		IPSW-05-101802FT	4 / 6	1.3 - 1.4	1.4
Potassium	2740		5660		IPSW-05-092502FT	6 / 6	N/A	4022
Selenium						0 / 6	1.7 - 3.2	1.3
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	23600		43650		IPSW-05-042602FT	6 / 6	N/A	34708
Thallium						0 / 6	2.2 - 5.1	1.6
Vanadium	1.1	J	1.1	J	IPSW-05-101802FT	1 / 6	0.3 - 0.89	0.41
Zinc	42.6	J	78.8		IPSW-05-083102FT	5 / 6	42.3	51

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-235
SURFACE WATER DATA SUMMARY - GAUGING STATION 06 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	281		513		IPSW-06-042602	4 / 6	224 - 230	317
Antimony	3.9		3.9		IPSW-06-092502	1 / 6	1.5 - 2.6	1.5
Arsenic	15.2		25.5		IPSW-06-092502	6 / 6	N/A	20
Barium	24.4		47.9		IPSW-06-092502	6 / 6	N/A	34
Beryllium						0 / 6	0.2 - 0.56	0.13
Cadmium						0 / 6	0.2 - 0.88	0.23
Calcium	19400		35000		IPSW-06-092502	6 / 6	N/A	27492
Chromium	8		24.2		IPSW-06-101802	5 / 6	11.2	14
Cobalt	1.3	J	2.1		IPSW-06-101802	2 / 6	0.57 - 3.3	1.1
Copper	10.9		112	J	IPSW-06-042602	5 / 6	11.9	31
Iron	1540		3405		IPSW-06-101802	6 / 6	N/A	2466
Lead	11.9		16.25		IPSW-06-101802	3 / 6	7.1 - 7.9	8.9
Magnesium	2870		5590		IPSW-06-092502	6 / 6	N/A	4438
Manganese	177		490		IPSW-06-101802	6 / 6	N/A	307
Mercury	0.12	J	0.16	J	IPSW-06-101802	2 / 6	0.1	0.080
Nickel	1.4	J	3.3		IPSW-06-101802	3 / 6	1.7 - 4.4	1.9
Potassium	3010		5290	J	IPSW-06-092502	6 / 6	N/A	4139
Selenium						0 / 6	2.1 - 3	1.3
Silver						0 / 6	0.5 - 0.93	0.33
Sodium	27300		64300		IPSW-06-042602	6 / 6	N/A	44342
Thallium						0 / 6	2.2 - 4.2	1.4
Vanadium	2.1		2.1		IPSW-06-101802	2 / 6	1.1 - 3.5	1.3
Zinc	63.4		118		IPSW-06-101802	6 / 6	N/A	89
Dissolved Metals - ug/L								
Aluminum						0 / 6	7.6 - 57.7	18
Antimony	1.7	J	1.7	J	IPSW-06-072502FT	1 / 6	1.2 - 4.9	1.6
Arsenic	2.5	J	11.8		IPSW-06-051502FT	5 / 6	2.5	4.2
Barium	22		34.3		IPSW-06-092502FT	6 / 6	N/A	27
Beryllium						0 / 6	0.1 - 0.5	0.12
Cadmium						0 / 6	0.2 - 0.4	0.18
Calcium	21200		36100		IPSW-06-092502FT	6 / 6	N/A	27592
Chromium	1.9		2.9		IPSW-06-042602FT	4 / 6	1.2 - 1.7	1.7
Cobalt						0 / 6	0.4 - 0.93	0.34
Copper	4.2		51.7		IPSW-06-042602FT	4 / 6	4.7 - 6.1	12
Iron	211		790		IPSW-06-051502FT	4 / 6	91.9 - 116	346
Lead						0 / 6	0.7 - 2.3	0.76
Magnesium	3090		5330		IPSW-06-092502FT	6 / 6	N/A	4331
Manganese	97.9		255		IPSW-06-101802FT	6 / 6	N/A	153
Mercury						0 / 6	0.1 - 0.11	0.051
Nickel	1.2	J	2.1		IPSW-06-092502FT	3 / 6	0.9 - 2.1	1.2
Potassium	3280		6190		IPSW-06-092502FT	6 / 6	N/A	4268
Selenium						0 / 6	1.7 - 3.2	1.3
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	30100		60200		IPSW-06-042602FT	6 / 6	N/A	43350
Thallium						0 / 6	2.4 - 5.1	1.7
Vanadium						0 / 6	0.3 - 0.81	0.29
Zinc	33	J	60.5		IPSW-06-083102FT	6 / 6	N/A	47

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-236
SURFACE WATER DATA SUMMARY - GAUGING STATION 07 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	386		651		IPSW-07-042602	2 / 6	115 - 288	227
Antimony	1.25	J	1.25	J	IPSW-07-092502	1 / 6	1.6 - 3	1.2
Arsenic	4.8	J	18.1		IPSW-07-051502	6 / 6	N/A	9.7
Barium	25.2		31.4		IPSW-07-101802	6 / 6	N/A	29
Beryllium						0 / 6	0.2	0.10
Cadmium						0 / 6	0.2 - 0.72	0.19
Calcium	19300		25650		IPSW-07-072502	6 / 6	N/A	22967
Chromium	2.95	J	13.2		IPSW-07-042602	4 / 6	3.3 - 4	5.8
Cobalt	1.5		1.5		IPSW-07-101802	1 / 6	0.4 - 1.8	0.56
Copper	6.5		51.7	J	IPSW-07-042602	5 / 6	8.4	16
Iron	777		2520		IPSW-07-042602	6 / 6	N/A	1446
Lead	3.5		17		IPSW-07-042602	4 / 6	3.7 - 5.7	7.0
Magnesium	3050		4250		IPSW-07-101802	6 / 6	N/A	3683
Manganese	114.5		308		IPSW-07-042602	6 / 6	N/A	181
Mercury	0.11	J	0.11	J	IPSW-07-101802	1 / 6	0.1	0.060
Nickel	1.25	J	2.4		IPSW-07-101802	3 / 6	0.92 - 2.7	1.4
Potassium	2980		3910	J	IPSW-07-092502	6 / 6	N/A	3545
Selenium						0 / 6	1.7 - 3	1.2
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	29200		46700		IPSW-07-042602	6 / 6	N/A	37975
Thallium						0 / 6	2.2 - 4.2	1.4
Vanadium	0.56	J	2.9		IPSW-07-042602	3 / 6	0.64 - 2.3	1.3
Zinc	36.15	J	111		IPSW-07-042602	6 / 6	N/A	65
Dissolved Metals - ug/L								
Aluminum						0 / 6	7.6 - 57.7	20
Antimony						0 / 6	1.6 - 2.2	0.92
Arsenic	1.375	J	7.7		IPSW-07-051502FT	4 / 6	2 - 2.5	3.0
Barium	17.9		28.75		IPSW-07-072502FT	6 / 6	N/A	24
Beryllium						0 / 6	0.2	0.10
Cadmium						0 / 6	0.2 - 0.4	0.16
Calcium	19300		25500		IPSW-07-072502FT	6 / 6	N/A	22917
Chromium	1.5	J	2.2		IPSW-07-042602FT	3 / 6	0.82 - 1.7	1.2
Cobalt	0.74	J	0.74	J	IPSW-07-101802FT	1 / 6	0.4 - 0.7	0.34
Copper	4.6		20.3		IPSW-07-042602FT	3 / 6	4.5 - 5.5	6.4
Iron	74.225	J	722		IPSW-07-051502FT	5 / 6	49.5	236
Lead	2.5		2.5		IPSW-07-051502FT	1 / 6	0.7 - 2	0.93
Magnesium	3150		4230		IPSW-07-101802FT	6 / 6	N/A	3621
Manganese	27.5		164		IPSW-07-042602FT	6 / 6	N/A	98
Mercury						0 / 6	0.1	0.050
Nickel	1.03	J	1.3	J	IPSW-07-051502FT	3 / 6	1 - 1.6	0.89
Potassium	3140		3885		IPSW-07-092502FT	6 / 6	N/A	3521
Selenium						0 / 6	1.7 - 3	1.2
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	29000		44300		IPSW-07-042602FT	6 / 6	N/A	38017
Thallium						0 / 6	2.2 - 5.3	1.6
Vanadium	0.88	J	0.88	J	IPSW-07-101802FT	1 / 6	0.4 - 0.84	0.36
Zinc	20.85	J	43.6		IPSW-07-083102FT	6 / 6	N/A	36

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-237
SURFACE WATER DATA SUMMARY - GAUGING STATION 08 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum	109.3684		3396.621		IPSW-08-00-051602	6 / 6	N/A	875
Antimony	0.815972		1.835228		IPSW-08-00-051602	6 / 6	N/A	1.2
Arsenic	4.462236		29.86235		IPSW-08-00-051602	6 / 6	N/A	11
Barium	22.60288		95.17598		IPSW-08-00-051602	6 / 6	N/A	41
Beryllium	9.423936		0.269086		IPSW-08-00-072502	6 / 6	N/A	0.15
Cadmium	0.1		1.259727		IPSW-08-00-051602	6 / 6	N/A	0.36
Calcium	18397.38		24603.39		IPSW-08-00-042602	6 / 6	N/A	21269
Chromium	3.073701		59.1016		IPSW-08-00-051602	6 / 6	N/A	15
Cobalt	0.301183		4.063766		IPSW-08-00-051602	6 / 6	N/A	1.1
Copper	4.057568		78.7716		IPSW-08-00-051602	6 / 6	N/A	26
Iron	838.6627		8857.936		IPSW-08-00-051602	6 / 6	N/A	2768
Lead	3.859222		82.96712		IPSW-08-00-051602	6 / 6	N/A	23
Magnesium	3177.305		4029.125		IPSW-08-00-042602	6 / 6	N/A	3622
Manganese	154.5942		807.0306		IPSW-08-00-051602	6 / 6	N/A	338
Mercury	5.361909		0.241693		IPSW-08-00-051602	6 / 6	N/A	0.095
Nickel	0.927743		6.464543		IPSW-08-00-051602	6 / 6	N/A	2.0
Potassium	3055.335		3843.721		IPSW-08-00-042602	6 / 6	N/A	3369
Selenium	1.05		1.693372		IPSW-08-00-051602	6 / 6	N/A	1.4
Silver	0.25		0.4		IPSW-08-00-101802	6 / 6	N/A	0.33
Sodium	29523.75		52967.88		IPSW-08-00-042602	6 / 6	N/A	37105
Thallium	1.158015		2.152674		IPSW-08-00-083102	6 / 6	N/A	1.5
Vanadium	0.867644		10.14831		IPSW-08-00-051602	6 / 6	N/A	3.1
Zinc	25.47966		307.1629		IPSW-08-00-051602	6 / 6	N/A	112
Dissolved Metals - ug/L								
Aluminum	9.919237		37.42364		IPSW-08-00-051602FT	6 / 6	N/A	24
Antimony	0.790265		1.947827		IPSW-08-00-083102FT	6 / 6	N/A	1.3
Arsenic	1.284979		3.447913		IPSW-08-00-051602FT	6 / 6	N/A	2.0
Barium	20.92433		30.87228		IPSW-08-00-072502FT	6 / 6	N/A	24
Beryllium	8.527594		0.248879		IPSW-08-00-072502FT	6 / 6	N/A	0.13
Cadmium	0.106465		0.2		IPSW-08-00-042602FT	6 / 6	N/A	0.16
Calcium	18014.16		23546.61		IPSW-08-00-072502FT	6 / 6	N/A	20674
Chromium	0.53157		1.857312		IPSW-08-00-042602FT	6 / 6	N/A	1.0
Cobalt	0.214466		0.402026		IPSW-08-00-051602FT	6 / 6	N/A	0.30
Copper	1.997159		14.31572		IPSW-08-00-042602FT	6 / 6	N/A	4.8
Iron	21.9226		315.4828		IPSW-08-00-051602FT	6 / 6	N/A	157
Lead	0.683201		3.835089		IPSW-08-00-083102FT	6 / 6	N/A	1.5
Magnesium	2823.025		3854.093		IPSW-08-00-072502FT	6 / 6	N/A	3318
Manganese	21.50218		158.9092		IPSW-08-00-042602FT	6 / 6	N/A	85
Mercury	0.05		5.928234		IPSW-08-00-092502FT	6 / 6	N/A	0.052
Nickel	0.541668		0.997435		IPSW-08-00-072502FT	6 / 6	N/A	0.73
Potassium	2899.858		3643.029		IPSW-08-00-042602FT	6 / 6	N/A	3251
Selenium	1.053069		1.5		IPSW-08-00-101802FT	6 / 6	N/A	1.3
Silver	0.25		0.4		IPSW-08-00-101802FT	6 / 6	N/A	0.32
Sodium	28558.86		51989.28		IPSW-08-00-042602FT	6 / 6	N/A	36931
Thallium	1.124162		2.1		IPSW-08-00-083102FT	6 / 6	N/A	1.5
Vanadium	0.239593		0.451874		IPSW-08-00-101802FT	6 / 6	N/A	0.33
Zinc	11.26868		34.05547		IPSW-08-00-042602FT	6 / 6	N/A	22

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-238
SURFACE WATER DATA SUMMARY - GAUGING STATION 09 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum						0 / 6	24.9 - 91.6	28
Antimony	2.5	J	2.5	J	IPSW-09-051502	1 / 6	1.2 - 2.8	1.2
Arsenic	1.95	J	4.2		IPSW-09-092502	3 / 6	2 - 9.3	2.6
Barium	32.15		36.05		IPSW-09-092502	6 / 6	N/A	35
Beryllium						0 / 6	0.2	0.10
Cadmium	0.38	J	0.38	J	IPSW-09-042602	1 / 6	0.2 - 0.4	0.20
Calcium	30150		34650		IPSW-09-042602	6 / 6	N/A	31450
Chromium	0.605	J	0.605	J	IPSW-09-042602	1 / 6	0.4 - 1.2	0.40
Cobalt						0 / 6	0.4 - 0.7	0.28
Copper	3.5		3.5		IPSW-09-083102	1 / 6	3.2 - 4.6	2.2
Iron	77.75	J	234		IPSW-09-051502	4 / 6	99.1 - 136	138
Lead	1.035	J	1.3	J	IPSW-09-083102	2 / 6	0.7 - 2.3	0.85
Magnesium	4970		5735		IPSW-09-101802	6 / 6	N/A	5301
Manganese	22.7		72.4		IPSW-09-051502	6 / 6	N/A	48
Mercury						0 / 6	0.1	0.050
Nickel	0.55	J	1.4	J	IPSW-09-051502	2 / 6	0.77 - 1.6	0.68
Potassium	3690	J	5645		IPSW-09-042602	6 / 6	N/A	4455
Selenium						0 / 6	1.7 - 3	1.2
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	63600		109000		IPSW-09-042602	6 / 6	N/A	75967
Thallium						0 / 6	2.2 - 4.2	1.4
Vanadium	0.62	J	0.93	J	IPSW-09-083102	2 / 6	0.4 - 1.3	0.52
Zinc	2.4	J	115	J	IPSW-09-051502	3 / 6	3.2 - 16.5	23
Dissolved Metals - ug/L								
Aluminum						0 / 6	19.6 - 69.5	23
Antimony	4	J	4	J	IPSW-09-051502FT	1 / 6	1.2 - 4.8	1.6
Arsenic	1.025	J	3.55		IPSW-09-092502FT	4 / 6	2 - 3	1.9
Barium	29.9		34.1		IPSW-09-042602FT	6 / 6	N/A	33
Beryllium						0 / 6	0.2	0.10
Cadmium	0.305	J	0.305	J	IPSW-09-042602FT	1 / 6	0.2 - 0.4	0.18
Calcium	30000		34300		IPSW-09-042602FT	6 / 6	N/A	30992
Chromium						0 / 6	0.4 - 0.8	0.28
Cobalt						0 / 6	0.4 - 0.7	0.28
Copper	2.6		2.6		IPSW-09-083102FT	1 / 6	2.6 - 3.8	1.8
Iron						0 / 6	8.6 - 24.5	6.9
Lead						0 / 6	0.7 - 1.3	0.51
Magnesium	4950		5640		IPSW-09-042602FT	6 / 6	N/A	5223
Manganese	1.1		34.5		IPSW-09-051502FT	3 / 6	0.47 - 0.5	7.5
Mercury						0 / 6	0.1	0.050
Nickel	0.665	J	0.665	J	IPSW-09-072502FT	1 / 6	0.6 - 1.7	0.53
Potassium	3585		5600		IPSW-09-042602FT	6 / 6	N/A	4366
Selenium						0 / 6	2.1 - 3	1.3
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	60100		108500		IPSW-09-042602FT	6 / 6	N/A	74692
Thallium						0 / 6	2.2 - 4.2	1.4
Vanadium	0.375	J	0.375	J	IPSW-09-072502FT	1 / 6	0.4 - 1.1	0.32
Zinc	2.975	J	2.975	J	IPSW-09-072502FT	1 / 6	0.7 - 16.4	3.2

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 2-239
SURFACE WATER DATA SUMMARY - GAUGING STATION 10 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Total Metals - ug/L								
Aluminum						0 / 6	20.3 - 75.6	26
Antimony						0 / 6	1.2 - 3.7	1.2
Arsenic	2.775	J	2.775	J	IPSW-10-083102	1 / 6	1.3 - 3	1.4
Barium	35.3		46.05		IPSW-10-101802	6 / 6	N/A	40
Beryllium						0 / 6	0.1 - 0.2	0.092
Cadmium						0 / 6	0.2 - 0.4	0.18
Calcium	29400		33100		IPSW-10-101802	6 / 6	N/A	31208
Chromium	0.78	J	2		IPSW-10-042602	4 / 6	0.4 - 0.99	0.89
Cobalt						0 / 6	0.4 - 1.3	0.42
Copper	2.1	J	2.1	J	IPSW-10-083102	1 / 6	2.5 - 5.1	1.7
Iron	122.5		122.5		IPSW-10-101802	1 / 6	49.8 - 124	53
Lead	1.125	J	1.125	J	IPSW-10-083102	1 / 6	0.7 - 2.3	0.72
Magnesium	5550		7235		IPSW-10-101802	6 / 6	N/A	6039
Manganese	10.9		55.45		IPSW-10-101802	6 / 6	N/A	25
Mercury	0.1	J	0.1	J	IPSW-10-092502	1 / 6	0.1	0.058
Nickel	1.4	J	3.25	J	IPSW-10-083102	2 / 6	0.9 - 1.9	1.2
Potassium	4120	J	5580		IPSW-10-042602	6 / 6	N/A	4649
Selenium						0 / 6	1.7 - 3.2	1.3
Silver						0 / 6	0.5 - 0.8	0.31
Sodium	59150		111000		IPSW-10-042602	6 / 6	N/A	77967
Thallium						0 / 6	2.2 - 5.1	1.8
Vanadium	1	J	1	J	IPSW-10-092502	1 / 6	0.4 - 1.6	0.46
Zinc						0 / 6	0.7 - 16.7	3.0
Dissolved Metals - ug/L								
Aluminum						0 / 6	7.6 - 69.4	17
Antimony						0 / 6	1.2 - 4	1.2
Arsenic	2.175	J	2.175	J	IPSW-10-083102FT	1 / 6	1.3 - 3	1.3
Barium	35.6		42.75		IPSW-10-101802FT	6 / 6	N/A	38
Beryllium						0 / 6	0.1 - 0.66	0.13
Cadmium						0 / 6	0.2 - 0.4	0.18
Calcium	28900		34200		IPSW-10-042602FT	6 / 6	N/A	31267
Chromium	0.56	J	1		IPSW-10-051502FT	3 / 6	0.4 - 1.2	0.60
Cobalt						0 / 6	0.4 - 0.7	0.29
Copper	1.1	J	1.7	J	IPSW-10-092502FT	2 / 6	1.8 - 3.7	1.4
Iron						0 / 6	8.6 - 15.3	5.8
Lead						0 / 6	0.7 - 2.3	0.64
Magnesium	5730		6995		IPSW-10-101802FT	6 / 6	N/A	6079
Manganese	0.32	J	7.8		IPSW-10-042602FT	2 / 6	0.33 - 1.7	1.6
Mercury						0 / 6	0.1	0.050
Nickel	0.515	J	0.81	J	IPSW-10-072502FT	2 / 6	0.9 - 1.6	0.60
Potassium	4090		5810		IPSW-10-042602FT	6 / 6	N/A	4648
Selenium						0 / 6	1.7 - 3.2	1.3
Silver	0.55	J	0.55	J	IPSW-10-051502FT	1 / 6	0.5 - 0.8	0.36
Sodium	55500	J	116000		IPSW-10-042602FT	6 / 6	N/A	77942
Thallium						0 / 6	2.4 - 5.1	1.8
Vanadium						0 / 6	0.3 - 0.7	0.27
Zinc						0 / 6	0.7 - 14.4	2.1

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-240
SURFACE WATER DATA HITS TABLE - GAUGING STATION 05 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-05-042602	IPSW-05-051502	IPSW-05-072502	IPSW-05-083102	IPSW-05-092502	IPSW-05-101802
Total Metals (ug/L)						
Antimony	2.2 U	2.2 U	3.9 U	1.7 U	3.9	3.3 U
Arsenic	14.95	23.3	17.5	12.6	11.5	12
Barium	23.9	25.4	37	23.2	40.7	32.4 J
Calcium	23450	19700	27400	21500	34600	31000
Chromium	12.1	7.8	10.3	6.2	2.6 U	4.2
Cobalt	0.75 UJ	0.89 UJ	2.4 U	1.2 U	2 U	2.2
Copper	12.8 J	9.4 J	10.5 U	8.4	7.7 U	6.3 U
Iron	2095	2210	1850	1160	1150	1460
Lead	6.4 U	5.1	6 J	4.4	2.5 UJ	3 U
Magnesium	3770	3020	4060	3070	5230	4840
Manganese	225.5	155	233	159	124	529
Mercury	0.1 U	0.13 J	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	1.9 U	0.9 U	2.8	1.5	3.3 U	3
Potassium	3860	2930	4110 J	3260	5060 J	4250 J
Sodium	44800	30300	40200	24400	39300	39500
Vanadium	1.1	1.9 U	2.6	0.67 U	2.3 U	1.9 U
Zinc	96.4	63.2	70.7 J	108	80.4	53.9 J
Dissolved Metals (ug/L)						
Antimony	2.2 U	2.8 J	1.9 UJ	3.1 UJ	3.7 U	3 U
Arsenic	2.2 J	12.6	2.3 J	2.5 U	2.5 U	3 U
Barium	18.2	19.2	29.8	21.3	31.4	30.3
Calcium	22600	18600	28200	20400	34700	32400
Chromium	1.35	1.8 U	1.3 U	1.3 U	1.6	1.9
Cobalt	0.7 U	0.7 U	0.44 UJ	0.69 UJ	0.6 U	1.8
Copper	4.1 U	3.7 UJ	2.3 U	3.4 U	4.5	4.3 U
Iron	355.5	968	129	88.4 U	60.7	244
Magnesium	3615	2820	4200	2920	4960	5240
Manganese	192.5	114	153	125	70.3	498
Nickel	1.4 UJ	1.4 J	1.5	1.3 U	1.8 J	2.2
Potassium	3710	2740	4330 J	3250	5660	4440 J
Sodium	43650	28500	39700	23600	31600 J	41200
Vanadium	0.4 U	0.89 U	0.4 U	0.3 U	0.7 U	1.1 J
Zinc	50.55	42.3 U	42.6 J	78.8	66.2	44.8

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TABLE 2-241
SURFACE WATER DATA HITS TABLE - GAUGING STATION 06 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-06-042602	IPSW-06-051502	IPSW-06-072502	IPSW-06-083102	IPSW-06-092502	IPSW-06-101802
Total Metals (ug/L)						
Aluminum	513	281	230 U	224 U	369	512.5
Antimony	2.6 UJ	2.2 U	1.6 U	1.7 U	3.9	1.5 UJ
Arsenic	16.8	21.2	15.2	15.2	25.5	25.45
Barium	33	28.2	34.7	24.4	47.9	37.15 J
Calcium	28300	22100	27400	19400	35000	32750
Chromium	17.6	8	10.4	11.2 U	19.8 J	24.2
Cobalt	1.5 U	1.3 J	1 U	0.57 UJ	3.3 U	2.1
Copper	112 J	11.9	10.9	11.9 U	19.7	23.15
Iron	3010	2150	1920	1540	2770	3405
Lead	14.3	7.1 UJ	7.1 U	7.9 UJ	11.9	16.25
Magnesium	4710	3490	4490	2870	5590	5475
Manganese	415	210	218	177	330	490
Mercury	0.12 J	0.1 U	0.1 U	0.1 U	0.1 U	0.16 J
Nickel	2.6 U	2.3	1.4 J	1.7 U	4.4 U	3.3
Potassium	4230	3190	4140 J	3010	5290 J	4975 J
Sodium	64300	38200	43800	27300	46600	45850
Vanadium	2.1	1.7 U	1.2 U	1.1 U	3.5 U	2.1
Zinc	92.8	63.4	65.9	83.3	108	118
Dissolved Metals (ug/L)						
Antimony	2.2 U	3.9 UJ	1.7 J	4.9 U	3.7 U	1.2 U
Arsenic	3.4 J	11.8	2.5 J	2.5 U	3.8 J	2.55 J
Barium	22	23.6	31.3	24.1	34.3	29.45
Calcium	26100	22900	27100	21200	36100	32150
Chromium	2.9	2.2	1.2 UJ	1.7 U	1.9	1.9
Copper	51.7	6.1 UJ	4.2	5	6	4.7 U
Iron	595	790	116 U	91.9 U	211	378
Magnesium	4260	3560	4420	3090	5330	5325
Manganese	205	110	145	107	97.9	255
Nickel	2.1 U	0.9 U	1.2 J	1.1 UJ	2.1	1.9 J
Potassium	3820	3280	4080 J	3350	6190	4885 J
Sodium	60200	40000	43400	30100	40800 J	45600
Zinc	44.1	39.4	33 J	60.5	58	48.15 J

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TABLE 2-242
SURFACE WATER DATA HITS TABLE - GAUGING STATION 07 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-07-042602	IPSW-07-051502	IPSW-07-072502	IPSW-07-083102	IPSW-07-092502	IPSW-07-101802
Total Metals (ug/L)						
Aluminum	651	386	115 UJ	130 U	116 U	288 U
Antimony	2.6 UJ	3 UJ	1.6 U	1.7 U	1.25 J	2.8 U
Arsenic	11.7	18.1	5.35	4.8 J	7.25	11.2
Barium	29.3	25.9	30.75	25.2	28.85	31.4
Calcium	20600	19300	25650	23000	24350	24900
Chromium	13.2	6.8	2.95 J	4 U	3.3 U	8.2
Cobalt	1.8 U	0.73 UJ	0.4 U	0.4 U	0.4 U	1.5
Copper	51.7 J	12.2 J	6.5	8.4	8.4 U	11.6
Iron	2520	1930 J	909.5	777	880.5	1660
Lead	17	9.1	3.5	5.7 UJ	3.7 UJ	7.9 J
Magnesium	3490	3050	4065	3330	3910	4250
Manganese	308	156	157	128	114.5	224
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 J
Nickel	2.7 U	2.2	1.25 J	0.92 UJ	1.2 UJ	2.4
Potassium	3430	2980	3850 J	3260	3910 J	3840 J
Sodium	46700	34100	43800	29200	36750	37300
Vanadium	2.9	2.3 U	0.56 J	0.64 U	1 U	2.3
Zinc	111	62.4	36.15 J	59	49.7 J	71.8 J
Dissolved Metals (ug/L)						
Arsenic	2 U	7.7	1.375 J	2.5 U	3.2	3.6 J
Barium	17.9	22.5	28.75	23.5	26.95	24.7
Calcium	19300	20400	25500	22900	24200	25200
Chromium	2.2	1.6	1.6 U	1.7 U	0.82 UJ	1.5 J
Cobalt	0.7 U	0.7 U	0.4 U	0.4 U	0.4 U	0.74 J
Copper	20.3	4.5 U	4.6	6.2	5 U	5.5 U
Iron	165	722	74.225 J	49.5 U	205.5	224
Lead	2 UJ	2.5	0.7 U	1.3 U	0.9 UJ	1.2 U
Magnesium	3160	3150	4050	3280	3855	4230
Manganese	164	101	75.25	83.9	27.5	138
Nickel	1.6 UJ	1.3 J	1.03 J	1.2 U	1 UJ	1.1 J
Potassium	3170	3140	3810 J	3240	3885	3880
Sodium	44300	36600	43500	29000	36300	38400
Vanadium	0.4 U	0.84 U	0.4 U	0.5 UJ	0.4 U	0.88 J
Zinc	40.2	36.1	20.85 J	43.6	34.5 J	39.8

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TABLE 2-243
SURFACE WATER DATA HITS TABLE - GAUGING STATION 08 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-08-00-042602	IPSW-08-00-051602	IPSW-08-00-072502	IPSW-08-00-083102	IPSW-08-00-092502	IPSW-08-00-101802
Total Metals (ug/L)						
Aluminum	674	3397	109	579	331	158
Antimony	1.1	1.8	0.82	1.1	1.2	0.96
Arsenic	7.9	30	6.0	8.5	6.7	4.5
Barium	31	95	33	32	31	23
Beryllium	0.10	0.22	0.27	0.11	0.094	0.10
Cadmium	0.31	1.3	0.10	0.20	0.14	0.15
Calcium	24603	19752	23103	21414	20342	18397
Chromium	11	59	3.1	7.3	6.8	3.4
Cobalt	0.99	4.1	0.30	0.61	0.46	0.44
Copper	36	79	4.1	16	15	7.1
Iron	2202	8858	1027	2165	1519	839
Lead	18	83	4.1	18	13	3.9
Magnesium	4029	3963	3824	3404	3335	3177
Manganese	305	807	168	348	245	155
Mercury	0.062	0.24	0.057	0.069	0.086	0.054
Nickel	1.3	6.5	1.1	1.3	1.2	0.93
Potassium	3844	3425	3442	3055	3336	3110
Selenium	1.1	1.7	1.5	1.2	1.5	1.5
Silver	0.25	0.38	0.35	0.27	0.35	0.40
Sodium	52968	36236	41525	29524	31841	30534
Thallium	1.2	1.5	1.3	2.2	1.8	1.2
Vanadium	2.6	10	0.87	2.5	1.2	1.0
Zinc	170	307	25	69	56	44
Dissolved Metals (ug/L)						
Aluminum	9.9	37	29	14	24	29
Antimony	1.1	1.6	1.3	1.9	1.1	0.79
Arsenic	1.7	3.4	1.3	1.4	2.2	1.9
Barium	22	23	31	23	25	21
Beryllium	0.10	0.13	0.25	0.10	0.085	0.10
Cadmium	0.20	0.20	0.11	0.20	0.13	0.15
Calcium	23200	18014	23547	20624	19997	18661
Chromium	1.9	0.97	0.59	0.53	0.65	1.6
Cobalt	0.35	0.40	0.24	0.21	0.26	0.35
Copper	14	2.0	3.4	3.4	3.2	2.4
Iron	184	315	59	22	124	240
Lead	1.6	1.6	0.68	3.8	0.70	0.83
Magnesium	3742	2823	3854	3084	3200	3202
Manganese	159	104	63	34	22	127
Mercury	0.050	0.055	0.050	0.050	0.059	0.050
Nickel	0.83	0.57	1.0	0.54	0.66	0.79
Potassium	3643	2900	3506	3057	3228	3170
Selenium	1.1	1.4	1.5	1.1	1.5	1.5
Silver	0.25	0.29	0.39	0.25	0.36	0.40
Sodium	51989	35719	42503	28559	31727	31087
Thallium	1.1	1.4	1.3	2.1	1.8	1.2
Vanadium	0.24	0.37	0.33	0.31	0.28	0.45
Zinc	34	21	11	18	16	33

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TABLE 2-244
SURFACE WATER DATA HITS TABLE - GAUGING STATION 09 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-09-042602	IPSW-09-051502	IPSW-09-072502	IPSW-09-083102	IPSW-09-092502	IPSW-09-101802
Total Metals (ug/L)						
Antimony	2.2 U	2.5 J	1.6 U	2.8 UJ	1.6 U	1.2 U
Arsenic	1.95 J	2 U	2.35 J	9.3 U	4.2	3 U
Barium	35.85	33.6	32.15	35	36.05	35.75
Cadmium	0.38 J	0.4 U	0.36 UJ	0.4 U	0.2 U	0.3 U
Calcium	34650	30500	30150	30800	30650	31950
Chromium	0.605 J	1.2 U	0.6 U	0.4 UJ	0.6 U	0.8 U
Copper	3.2 UJ	3.6 U	4.5 U	3.5	4.6 U	3.7 U
Iron	136 U	234	187	212	99.1 U	77.75 J
Lead	1.1 U	2.3 UJ	1.035 J	1.3 J	0.7 U	1.4 UJ
Magnesium	5695	4970	5010	5060	5335	5735
Manganese	57.5	72.4	37.4	50	22.7	46.3
Nickel	1.6 UJ	1.4 J	0.55 J	0.92 UJ	0.77 UJ	1 U
Potassium	5645	4460	4085 J	4750	3690 J	4100 J
Sodium	109000	77600	68450	63600	64600	72550
Vanadium	0.4 U	1.3 U	0.62 J	0.93 J	0.79 UJ	0.7 U
Zinc	16.5 U	115 J	7.45 J	9.8 U	2.4 J	3.2 UJ
Dissolved Metals (ug/L)						
Antimony	2.2 U	4 J	1.6 U	4.8 U	1.6 U	1.2 U
Arsenic	1.95 J	2 U	1.025 J	2.6 J	3.55	3 U
Barium	34.1	29.9	31	32.3	34.1	33.85
Cadmium	0.305 J	0.4 U	0.26 UJ	0.4 U	0.2 U	0.3 U
Calcium	34300	30200	30000	30300	30050	31100
Copper	2.6 U	3.1 U	3.8 U	2.6	3.7 U	3.2 U
Magnesium	5640	4980	4970	4950	5220	5580
Manganese	8.4	34.5	0.5 UJ	1.1	0.5 U	0.47 U
Nickel	1.7 UJ	0.9 U	0.665 J	0.6 U	0.8 UJ	1 U
Potassium	5600	4480	4115	4450	3585	3965
Sodium	108500	77800	68450	60100	62950	70350
Vanadium	0.4 U	0.51 UJ	0.375 J	1.1 U	0.4 U	0.7 U
Zinc	12.2 U	16.4 U	2.975 J	1.8 UJ	0.7 U	1.1 U

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TABLE 2-245
SURFACE WATER DATA HITS TABLE - GAUGING STATION 10 - STORM EVENT
WELLS G&H SUPERFUND SITE (OU3)

Parameter	IPSW-10-042602	IPSW-10-051502	IPSW-10-072502	IPSW-10-083102	IPSW-10-092502	IPSW-10-101802
Total Metals (ug/L)						
Arsenic	2 U	2 U	1.3 U	2.775 J	2.5 U	3 U
Barium	39.3	35.3	41.4	36.55	40.7	46.05
Calcium	33000	30800	29400	29850	31100	33100
Chromium	2	0.78 J	0.99 UJ	0.4 UJ	0.83 J	1.035 J
Copper	3.1 UJ	2.9 UJ	5.1 U	2.1 J	2.5 UJ	2.6 UJ
Iron	124 U	58.4 UJ	79.2 U	74.8 U	49.8 U	122.5
Lead	1.1 U	1.1 U	0.7 U	1.125 J	2.3 UJ	1.2 U
Magnesium	6050	5640	5550	5670	6090	7235
Manganese	41.4	12.8	10.9	11.55	15.7	55.45
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 J	0.1 U
Nickel	1.9 U	0.9 U	1.4 J	3.25 J	1 U	1 U
Potassium	5580	4760	4120 J	4395	4650	4390 J
Sodium	111000	87900	72600	59150	59800 J	77350
Vanadium	0.4 U	0.4 U	1.6 U	0.45 UJ	1 J	0.7 U
Dissolved Metals (ug/L)						
Arsenic	2 U	2 U	1.3 U	2.175 J	2.5 U	3 U
Barium	38	35.6	36.5	36.6	37.1	42.75
Calcium	34200	32200	28900	30300	30000	32000
Chromium	0.56 J	1	1.2 UJ	0.4 UJ	0.82 J	0.8 U
Copper	3.7 U	3.5 U	1.8 U	1.1 J	1.7 J	2 UJ
Magnesium	6300	5890	5730	5780	5780	6995
Manganese	7.8	1.7 U	0.5 UJ	0.32 J	0.33 UJ	0.67 U
Nickel	1.6 UJ	0.9 U	0.81 J	0.515 J	1 U	1 U
Potassium	5810	4990	4090	4525	4270	4205
Silver	0.5 U	0.55 J	0.7 U	0.5 U	0.7 U	0.8 U
Sodium	116000	92700	68100	60550	55500 J	74800

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TABLE 2-246
SEDIMENT DATA SUMMARY - AJRW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	3600		14000		SD-AJRW03	15 / 15	N/A	8407
Antimony						0 / 15	9.4 - 11	4.9
Arsenic	20		57.5	J	SD-AJRW02	7 / 14	9.4 - 20	22
Barium	20		89.5		SD-AJRW02	15 / 15	N/A	52
Beryllium	0.98		0.98		SD-AJRW03	1 / 15	0.94 - 1.1	0.53
Cadmium	3.6		3.8		SD-AJRW05	3 / 15	2.8 - 3.3	1.9
Calcium	1600		5800		SD-AJRW02	15 / 15	N/A	3053
Chromium	11		235		SD-AJRW09	15 / 15	N/A	89
Cobalt	4.1		17		SD-AJRW03	15 / 15	N/A	8.7
Copper	11		190		SD-AJRW09	15 / 15	N/A	92
Iron	8800		25000		SD-AJRW02	15 / 15	N/A	14553
Lead	35		1000		SD-AJRW04	15 / 15	N/A	259
Magnesium	1800		4800		SD-AJRW07	15 / 15	N/A	3207
Manganese	91		445		SD-AJRW02	15 / 15	N/A	221
Mercury	0.051	J	1.045		SD-AJRW09	14 / 15	0.025	0.51
Nickel	6.9		24		SD-AJRW02	15 / 15	N/A	14
Potassium	1200		1300		SD-AJRW03	3 / 15	940 - 1100	646
Selenium						0 / 15	9.4 - 20	6.9
Silver						0 / 15	2.8 - 3.3	1.5
Sodium	795	J	795	J	SD-AJRW02	1 / 15	940 - 1100	513
Thallium						0 / 9	47 - 55	25
Vanadium	17		53		SD-AJRW03	15 / 15	N/A	30
Zinc	51		820		SD-AJRW03	15 / 15	N/A	334
Total Organic Carbon (mg/Kg)	20000		74300		SD-AJRW02	14 / 15	6410	39924

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-247
SEDIMENT DATA HITS TABLE - AJRW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AJRW01	SD-AJRW02	SD-AJRW03	SD-AJRW04	SD-AJRW05	SD-AJRW06	SD-AJRW07	SD-AJRW09	SD-AJRW11
Metals (mg/Kg)									
Aluminum	3600	11500	14000	6200	11000	8200	8900	12500	4700
Arsenic	9.4 U	57.5 J	42 J	R	48 J	29 J	20 U	20 U	20 U
Barium	20	89.5	80	29	81	51	44	74.5	33
Beryllium	0.94 U	0.98 U	0.98	0.94 U	0.98 U	1 U	1 UJ	1 UJ	0.98 UJ
Cadmium	2.8 U	3.75	3.6	2.8 U	3.8	3 U	3 U	3 U	2.9 U
Calcium	1600	5800	4500	2500	4900	3400	3000	3400	1800
Chromium	11	145	160	20	130	89	16	235	41
Cobalt	4.1	15.5	17	6.9	15	11	7.9	7.7	5.4
Copper	11	165	120	19	150	92	59	190	42
Iron	8800	25000	20000	11000	22000	15000	15000	15500	10000
Lead	35	260	440	1000	330	150	210	470	78
Magnesium	1800	4200	4200	3300	3900	3200	4800	4300	1900
Manganese	130	445	210	260	360	220	160	145	200
Mercury	0.025 U	0.835 J	0.94 J	0.051 J	0.68 J	0.46 J	0.15	1.045	0.24
Nickel	6.9	24	21	12	23	17	11	17	9.7
Potassium	940 U	1250	1300	940 U	1200	1000 U	1000 U	1000 U	980 U
Sodium	940 U	795 J	940 U	940 U	980 U	1000 U	1000 U	1000 U	980 U
Vanadium	17	42.5	53	19	42	28	27	47.5	19
Zinc	51	740	820	140	720	470	190	395	150
TOC/TCO (mg/Kg)									
Total Organic Carbon	6410 U	74300	49300	22200	26700	20000	30700	73150	29900

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TABLE 2-247
SEDIMENT DATA HITS TABLE - AJRW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SD-AJRW13	SD-AJRW15	SD-AJRW17	SD-AJRW19	SD-AJRW21	SD-AJRW23
Metals (mg/Kg)						
Aluminum	6200	7600	8600	9200	6600	7300
Arsenic	19 U	20 U	29	22	20 U	20
Barium	35	40	60	52	39	47
Beryllium	0.94 UJ	1 UJ	1.1 UJ	1 UJ	0.98 UJ	1 UJ
Cadmium	2.8 U	3 U	3.3 U	3 U	2.9 U	3 U
Calcium	2300	2300	2700	2600	2600	2400
Chromium	63	60	100	120	67	82
Cobalt	4.9	6.4	9	8	4.4	7.1
Copper	64	84	120	110	72	85
Iron	10000	12000	17000	14000	10000	13000
Lead	130	130	180	190	150	130
Magnesium	2600	2700	3000	3000	2500	2700
Manganese	130	190	330	210	91	240
Mercury	0.38	0.43	0.79	0.7	0.5	0.5
Nickel	10	9.9	15	14	9.9	11
Potassium	940 U	1000 U	1100 U	1000 U	980 U	1000 U
Sodium	940 U	1000 U	1100 U	1000 U	980 U	1000 U
Vanadium	22	24	30	29	24	25
Zinc	150	200	350	300	120	220
TOC/TCO (mg/Kg)						
Total Organic Carbon	33700	50300	53500	58500	28300	45100

US EPA ARCHIVE DOCUMENT

TABLE 2-248
SURFACE SOIL DATA SUMMARY - AJRW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	6400		17000		SO-AJRW12	9 / 9	N/A	11311
Antimony						0 / 9	9.6 - 10	4.9
Arsenic	24		98		SO-AJRW22	7 / 9	19 - 20	46
Barium	20		220		SO-AJRW16	9 / 9	N/A	62
Beryllium						0 / 9	0.96 - 1	0.49
Cadmium						0 / 9	2.9 - 3	1.5
Calcium	680		4800		SO-AJRW10	9 / 9	N/A	2090
Chromium	19		90		SO-AJRW18	9 / 9	N/A	40
Cobalt	3.5		21		SO-AJRW12	9 / 9	N/A	9.1
Copper	26		200		SO-AJRW24	9 / 9	N/A	64
Iron	11000		34000		SO-AJRW12	9 / 9	N/A	17667
Lead	88		930		SO-AJRW16	9 / 9	N/A	298
Magnesium	1600		11000		SO-AJRW12	9 / 9	N/A	4222
Manganese	63		600		SO-AJRW12	9 / 9	N/A	229
Mercury	0.22		1.2		SO-AJRW10	9 / 9	N/A	0.43
Nickel	7		33		SO-AJRW12	9 / 9	N/A	14
Potassium	1300		1300		SO-AJRW12	1 / 9	960 - 1000	583
Selenium						0 / 9	9.6 - 10	4.9
Silver						0 / 9	2.9 - 3	1.5
Sodium						0 / 9	960 - 1000	493
Thallium						0 / 9	48 - 50	25
Vanadium	29		70		SO-AJRW12	9 / 9	N/A	44
Zinc	25		250		SO-AJRW24	9 / 9	N/A	112
Total Organic Carbon (mg/Kg)	35400		143000		SO-AJRW16	9 / 9	N/A	70011

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-249
SURFACE SOIL DATA HITS TABLE - AJRW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SO-AJRW08	SO-AJRW10	SO-AJRW12	SO-AJRW14	SO-AJRW16	SO-AJRW18	SO-AJRW20	SO-AJRW22	SO-AJRW24
Metals (mg/Kg)									
Aluminum	10000	12000	17000	11000	10000	9400	11000	6400	15000
Arsenic	28	55	30	79	84	24	19 U	98	20 U
Barium	49	58.5	62	34	220	47	20	20	49
Calcium	2800	4800	3300	1300	1400	1800	930	680	1800
Chromium	49	24.5	48	19	30	90	36	21	42
Cobalt	9.1	13	21	6.3	5.8	7.9	5.1	3.5	10
Copper	54	37.5	59	26	38	92	38	28	200
Iron	17000	22000	34000	16000	15000	15000	11000	11000	18000
Lead	260	315	120	280	930	160	88	420	110
Magnesium	4600	5800	11000	3000	2500	2900	2300	1600	4300
Manganese	210	335	600	150	160	220	120	63	200
Mercury	0.3	1.2	0.24	0.24	0.55	0.56	0.22	0.23	0.35
Nickel	15	16	33	11	12	14	8.5	7	13
Potassium	1000 U	960 U	1300	1000 U	1000 U	980 U	960 U	1000 U	1000 U
Vanadium	45	50	70	47	54	29	31	38	33
Zinc	130	160	78	62	68	180	57	25	250
TOC/TCO (mg/Kg)									
Total Organic Carbon	70200	42400	39900	77900	143000	50600	59700	111000	35400

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TABLE 2-250
SEDIMENT CORE DATA SUMMARY - SC05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	13000		19000		SC0523	4 / 4	N/A	15250
Antimony	13		13		SC0523	1 / 4	8.2 - 12	7.3
Arsenic	210		900		SC0523	4 / 4	N/A	535
Barium	55		78		SC0523	4 / 4	N/A	65
Beryllium	1.1		1.5		SC0523	2 / 4	1.2	0.95
Cadmium	4.2		24		SC0534	4 / 4	N/A	12
Calcium	5000		10000		SC0534	4 / 4	N/A	7325
Chromium	700		1500		SC0523	4 / 4	N/A	1150
Cobalt	10		17		SC0523	4 / 4	N/A	13
Copper	450		1600		SC0523	4 / 4	N/A	990
Iron	24000		50000		SC0523	4 / 4	N/A	33000
Lead	240		640		SC0523	4 / 4	N/A	398
Magnesium	1700		3100		SC0501	4 / 4	N/A	2225
Manganese	250		390		SC0501	4 / 4	N/A	355
Mercury	3.5	J	26	J	SC0523	4 / 4	N/A	11
Nickel	17		22		SC0523	4 / 4	N/A	19
Potassium						0 / 4	760 - 1200	498
Selenium						0 / 4	15 - 24	9.9
Silver	1.5		2		SC0523	2 / 4	1.8	1.3
Sodium	1800		2100		SC0534	2 / 4	1200	1275
Thallium						0 / 4	15 - 24	9.9
Vanadium	34		61		SC0523	4 / 4	N/A	45
Zinc	790		1900		SC0534	4 / 4	N/A	1248
Wet Parameters - mg/Kg								
Chromium VI	7.5		16		SC0523	4 / 4	N/A	12
Total Organic Carbon (mg/Kg)	65200		184000		SC0534	4 / 4	N/A	116225

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-251
SEDIMENT CORE DATA SUMMARY - SC06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	2400		19000		SC0612	4 / 4	N/A	12000
Antimony						0 / 4	11 - 50	14
Arsenic	66		1700		SC0612	4 / 4	N/A	859
Barium	14		150		SC0601	4 / 4	N/A	66
Beryllium						0 / 4	1.1 - 5	1.4
Cadmium	6.9		48		SC0612	3 / 4	1.6	19
Calcium	2000		6800		SC0601	4 / 4	N/A	4800
Chromium	52		750		SC0601	4 / 4	N/A	443
Cobalt	10		52		SC0601	3 / 4	3.3	22
Copper	41		950		SC0612	4 / 4	N/A	500
Iron	5000		120000		SC0601	4 / 4	N/A	47750
Lead	22		620		SC0612	4 / 4	N/A	343
Magnesium	460		3300		SC0601	4 / 4	N/A	1590
Manganese	110		1800		SC0601	4 / 4	N/A	775
Mercury	0.31	J	8.2	J	SC0601	4 / 4	N/A	4.8
Nickel	8		39		SC0601	2 / 4	6.6 - 22	15
Potassium						0 / 4	1100 - 5000	1363
Selenium						0 / 4	22 - 100	27
Silver						0 / 4	1.6 - 7.5	2.0
Sodium						0 / 4	1100 - 5000	1363
Thallium						0 / 4	22 - 100	27
Vanadium	5.3		64		SC0601	4 / 4	N/A	35
Zinc	200		4600		SC0612	4 / 4	N/A	1950
Wet Parameters - mg/Kg								
Chromium VI	0.56		8.0		SC0601	4 / 4	N/A	4.8
Total Organic Carbon (mg/Kg)	67000		179000		SC0601	4 / 4	N/A	144750

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-252
SEDIMENT CORE DATA SUMMARY - SC07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	5200		10000		SC0712	3 / 3	N/A	8367
Antimony						0 / 4	8.2 - 34	7.9
Arsenic	61		440		SC0701	4 / 4	N/A	208
Barium	19		95		SC0701	4 / 4	N/A	50
Beryllium	1.2		1.6		SC0723	2 / 4	1 - 3.4	1.3
Cadmium	2.7		25		SC0701	4 / 4	N/A	11
Calcium	12000		18000		SC0723	4 / 4	N/A	15750
Chromium	240		2700		SC0701	4 / 4	N/A	1195
Cobalt	8.6		68		SC0701	4 / 4	N/A	31
Copper	77		910		SC0701	4 / 4	N/A	402
Iron	6500		59000		SC0701	4 / 4	N/A	26125
Lead	36		570		SC0701	4 / 4	N/A	237
Magnesium	1400		3200		SC0701	4 / 4	N/A	2200
Manganese	270		2600		SC0701	4 / 4	N/A	1060
Mercury	0.41	J	3.7	J	SC0701	4 / 4	N/A	1.6
Nickel	9		49		SC0701	4 / 4	N/A	23
Potassium						0 / 4	820 - 6800	1215
Selenium						0 / 4	16 - 68	16
Silver						0 / 3	1.2 - 1.6	0.72
Sodium						0 / 4	820 - 6800	1215
Thallium						0 / 4	16 - 68	16
Vanadium	30		72		SC0701	4 / 4	N/A	44
Zinc	460		4800		SC0701	4 / 4	N/A	2115
Wet Parameters - mg/Kg								
Chromium VI	2.6		29		SC0701	4 / 4	N/A	13
Total Organic Carbon (mg/Kg)	188000		322000		SC0712	4 / 4	N/A	256000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-253
SEDIMENT CORE DATA SUMMARY - SC08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	1700		21500		SC0801	4 / 4	N/A	7550
Antimony						0 / 4	9.8 - 50	10
Arsenic	140		1250		SC0801	2 / 4	20	353
Barium	6.3		93.5		SC0801	4 / 4	N/A	32
Beryllium						0 / 4	0.98 - 5	1.0
Cadmium	3.6		22.4		SC0801	2 / 4	1.4 - 1.5	6.9
Calcium	480		8670		SC0801	4 / 4	N/A	3433
Chromium	5.5		1430		SC0801	4 / 4	N/A	383
Cobalt	4.5		31.1		SC0801	2 / 4	2.9 - 3	9.6
Copper	130		1410		SC0801	2 / 4	2.9 - 3	386
Iron	1800		58200		SC0801	4 / 4	N/A	17425
Lead	56		676		SC0801	2 / 4	9.8 - 10	185
Magnesium	560		2090		SC0801	4 / 4	N/A	1020
Manganese	25		591		SC0801	4 / 4	N/A	205
Mercury	1		14		SC0801	2 / 4	0.025	3.8
Nickel						0 / 4	5.9 - 30	6.1
Potassium						0 / 4	980 - 5000	1010
Selenium						0 / 4	9.8 - 50	10
Silver						0 / 3	1.4 - 1.6	0.75
Sodium						0 / 4	980 - 5000	1010
Thallium						0 / 4	20 - 100	20
Vanadium	12		66.9		SC0801	2 / 4	2.9 - 3	20
Zinc	43		2650		SC0801	4 / 4	N/A	859
Wet Parameters - mg/Kg								
Chromium VI	0.059		15		SC0801	4 / 4	N/A	4.1
Total Organic Carbon (mg/Kg)	4490	J	85000		SC0812	3 / 3	N/A	32903

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-254
SEDIMENT CORE DATA SUMMARY - SC09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4600		7200		SC0912	4 / 4	N/A	6025
Antimony						0 / 4	10 - 11	5.3
Arsenic	31		89		SC0901	4 / 4	N/A	48
Barium	14		24		SC0912	4 / 4	N/A	18
Beryllium						0 / 4	1 - 1.1	0.53
Cadmium						0 / 4	1.5 - 1.6	0.78
Calcium	1800		2300		SC0912	4 / 4	N/A	2050
Chromium	33		190		SC0901	4 / 4	N/A	90
Cobalt	3.4		5		SC0912	3 / 4	3.3	3.7
Copper	58		160		SC0901	4 / 4	N/A	88
Iron	6300		13000		SC0901	4 / 4	N/A	9200
Lead	19		69		SC0901	4 / 4	N/A	33
Magnesium	1600		3000		SC0912	4 / 4	N/A	2275
Manganese	120		140		SC0901	4 / 4	N/A	125
Mercury	0.28		1.2		SC0901	4 / 4	N/A	0.56
Nickel	6.7		7.8		SC0912	3 / 4	6.6	6.2
Potassium	1500		1500		SC0912	1 / 4	1000 - 1100	775
Selenium						0 / 4	10 - 11	5.3
Silver						0 / 4	1.5 - 1.6	0.78
Sodium						0 / 4	1000 - 1100	525
Thallium						0 / 4	20 - 22	11
Vanadium	10		19		SC0901	4 / 4	N/A	15
Zinc	260		740		SC0912	4 / 4	N/A	473
Wet Parameters - mg/Kg								
Chromium VI	0.35		2.0		SC0901	4 / 4	N/A	0.96
Total Organic Carbon (mg/Kg)	24900		39800		SC0901	4 / 4	N/A	32175

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-255
SEDIMENT CORE DATA SUMMARY - SC10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	4600		6300		SC1034	4 / 4	N/A	5550
Antimony						0 / 4	9.6 - 11	5.1
Arsenic	21		67		SC1001	2 / 4	19 - 20	27
Barium	17		30		SC1023	4 / 4	N/A	24
Beryllium						0 / 4	0.96 - 1.1	0.51
Cadmium						0 / 4	1.4 - 1.6	0.74
Calcium	1100		2300		SC1001	4 / 4	N/A	1525
Chromium	12		130		SC1001	4 / 4	N/A	46
Cobalt	3.3		4.5		SC1034	4 / 4	N/A	3.9
Copper	15		47		SC1001	4 / 4	N/A	25
Iron	6500		11000		SC1001	4 / 4	N/A	8075
Lead	28		28		SC1001	1 / 4	9.6 - 10	11
Magnesium	1000		2600		SC1034	4 / 4	N/A	1825
Manganese	74		110		SC1001	4 / 4	N/A	87
Mercury	0.033		0.18		SC1001	2 / 4	0.025	0.060
Nickel	6.8		10		SC1034	2 / 4	6 - 6.6	5.8
Potassium	1000		1000		SC1023	1 / 4	980 - 1100	635
Selenium						0 / 4	9.6 - 11	5.1
Silver						0 / 4	1.4 - 1.6	0.74
Sodium						0 / 4	980 - 1100	508
Thallium						0 / 4	19 - 22	10
Vanadium	9.2		14		SC1034	4 / 4	N/A	12
Zinc	73		150		SC1001	4 / 4	N/A	100
Wet Parameters - mg/Kg								
Chromium VI	0.13		1.4		SC1001	4 / 4	N/A	0.49
Total Organic Carbon (mg/Kg)	940	J	23000		SC1001	4 / 4	N/A	7745

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-256
SEDIMENT CORE DATA SUMMARY - SC11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	11500		17000		SC1134	4 / 4	N/A	13875
Antimony						0 / 4	6.8 - 9.6	4.1
Arsenic	97		110		SC1112	4 / 4	N/A	101
Barium	97		120		SC1134	4 / 4	N/A	109
Beryllium	1		1.2		SC1134	3 / 4	0.85	0.91
Cadmium	4.2		7.2		SC1134	4 / 4	N/A	5.9
Calcium	4900		6000		SC1134	4 / 4	N/A	5463
Chromium	240		370		SC1134	4 / 4	N/A	298
Cobalt	18.5		22		SC1112	4 / 4	N/A	20
Copper	215		340		SC1134	4 / 4	N/A	261
Iron	29000		32000		SC1112	4 / 4	N/A	29750
Lead	250		1200		SC1134	4 / 4	N/A	578
Magnesium	4100		5300		SC1134	4 / 4	N/A	4550
Manganese	440		630		SC1112	4 / 4	N/A	519
Mercury	1.7		2.2		SC1134	4 / 4	N/A	1.9
Nickel	29.5		45		SC1134	4 / 4	N/A	37
Potassium	1100		1400		SC1134	4 / 4	N/A	1250
Selenium						0 / 4	6.8 - 9.6	4.1
Silver	4.6		4.6		SC1134	1 / 4	1.1 - 1.4	1.6
Sodium						0 / 4	680 - 960	408
Thallium						0 / 4	14 - 19	8.1
Vanadium	47.5		71		SC1134	4 / 4	N/A	58
Zinc	960		1400		SC1112	4 / 4	N/A	1265
Wet Parameters - mg/Kg								
Chromium VI	2.6		4.0		SC1134	4 / 4	N/A	3.2
Total Organic Carbon (mg/Kg)	101000		117500		SC1101	4 / 4	N/A	108625

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-257
SEDIMENT CORE DATA SUMMARY - SC12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	17000		20000		SC1234	4 / 4	N/A	17750
Antimony						0 / 4	7.1 - 8.8	4.0
Arsenic	100		130		SC1201	4 / 4	N/A	113
Barium	130		140		SC1201	4 / 4	N/A	135
Beryllium	1.1		1.5		SC1234	4 / 4	N/A	1.3
Cadmium	9.3		11		SC1212	4 / 4	N/A	10
Calcium	5400		6900		SC1201	4 / 4	N/A	6200
Chromium	390		740		SC1234	4 / 4	N/A	500
Cobalt	21		23		SC1201	4 / 4	N/A	22
Copper	370		460		SC1234	4 / 4	N/A	398
Iron	30000		37000		SC1201	4 / 4	N/A	33500
Lead	520		1300		SC1234	4 / 4	N/A	955
Magnesium	5000		5500		SC1234	4 / 4	N/A	5275
Manganese	470		960		SC1201	4 / 4	N/A	643
Mercury	2.4		2.7		SC1234	4 / 4	N/A	2.6
Nickel	39		41		SC1234	4 / 4	N/A	40
Potassium	1500		1560		SC1234	4 / 4	N/A	1515
Selenium	10		10		SC1234	1 / 4	7.6 - 8.8	5.6
Silver	3.1		3.6		SC1234	3 / 4	1.2	2.7
Sodium						0 / 4	720 - 880	403
Thallium						0 / 4	14 - 18	8.0
Vanadium	64		86		SC1234	4 / 4	N/A	71
Zinc	1700		1800		SC1201	4 / 4	N/A	1750
Wet Parameters - mg/Kg								
Chromium VI	4.183731		7.938361		SC1234	4 / 4	N/A	5.4
Total Organic Carbon (mg/Kg)	105000		112000		SC1201	4 / 4	N/A	108000

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-258
SEDIMENT CORE DATA SUMMARY - SC13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
Metals - mg/Kg								
Aluminum	9400		22000		SC1301	4 / 4	N/A	14600
Antimony						0 / 4	6.4 - 10	4.3
Arsenic	45		120		SC1301	4 / 4	N/A	78
Barium	72		120		SC1301	4 / 4	N/A	93
Beryllium	1		1.5		SC1301	2 / 4	1	0.88
Cadmium	3.95		12		SC1301	4 / 4	N/A	7.2
Calcium	5900		18000		SC1334	4 / 4	N/A	10925
Chromium	200		600		SC1301	4 / 4	N/A	343
Cobalt	8.5		28		SC1301	4 / 4	N/A	16
Copper	210		460		SC1301	4 / 4	N/A	333
Iron	11500		32000		SC1301	4 / 4	N/A	18875
Lead	130		810		SC1301	4 / 4	N/A	370
Magnesium	2100		5300		SC1301	4 / 4	N/A	3350
Manganese	180		370		SC1301	4 / 4	N/A	250
Mercury	0.95	J	2.1	J	SC1301	4 / 4	N/A	1.5
Nickel	10.5		37		SC1301	4 / 4	N/A	20
Potassium	1400		1400		SC1301	1 / 4	780 - 1000	698
Selenium						0 / 4	10 - 20	7.4
Silver	1.8		1.8		SC1301	1 / 4	1.2 - 1.5	0.98
Sodium	750		750		SC1301	1 / 4	780 - 1000	535
Thallium						0 / 4	13 - 20	8.6
Vanadium	30		87		SC1301	4 / 4	N/A	48
Zinc	815		2500		SC1301	4 / 4	N/A	1629
Wet Parameters - mg/Kg								
Chromium VI	2.145503		6.436509		SC1301	4 / 4	N/A	3.7
Total Organic Carbon (mg/Kg)	115000		306000		SC1334	4 / 4	N/A	209750

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 2-259
SEDIMENT CORE DATA HITS TABLE - SC05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC0501	SC0512	SC0523	SC0534
Metals (mg/Kg)				
Aluminum	15000	13000	19000	14000
Antimony	12 U	12 U	13	8.2 U
Arsenic	210	260	900	770
Barium	66	55	78	59
Beryllium	1.2 U	1.2 U	1.5	1.1
Cadmium	4.2	6	14	24
Calcium	5200	5000	9100	10000
Chromium	1200	1200	1500	700
Cobalt	13	10	17	12
Copper	510	450	1600	1400
Iron	24000	27000	50000	31000
Lead	390	240	640	320
Magnesium	3100	2100	2000	1700
Manganese	390	250	390	390
Mercury	3.5 J	7.5 J	26 J	8.3 J
Nickel	20	18	22	17
Silver	1.8 U	1.8 U	2	1.5
Sodium	1200 U	1200 U	1800	2100
Vanadium	43	40	61	34
Zinc	790	1000	1300	1900
TOC/TCO (mg/Kg)				
Total Organic Carbon	65200	67700	148000	184000
Wet Parameters (mg/Kg)				
Chromium VI	13	13	16	7.5

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TABLE 2-260
SEDIMENT CORE DATA HITS TABLE - SC06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC0601	SC0612	SC0623	SC0634
Metals (mg/Kg)				
Aluminum	18000	19000	8600	2400
Arsenic	1300	1700	370	66
Barium	150	61	37	14
Cadmium	19	48	6.9	1.6 U
Calcium	6800	5300	5100	2000
Chromium	750	710	260	52
Cobalt	52	26	10	3.3 U
Copper	770	950	240	41
Iron	120000	48000	18000	5000
Lead	590	620	140	22
Magnesium	3300	1600	1000	460
Manganese	1800	840	350	110
Mercury	8.2 J	8 J	2.6 J	0.31 J
Nickel	39	22 U	8	6.6 U
Vanadium	64	50	22	5.3
Zinc	2000	4600	1000	200
TOC/TCO (mg/Kg)				
Total Organic Carbon	179000	172000	161000	67000
Wet Parameters (mg/Kg)				
Chromium VI	8.0	7.6	2.8	0.56

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TABLE 2-261
SEDIMENT CORE DATA HITS TABLE - SC07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC0701	SC0712	SC0723	SC0734
Metals (mg/Kg)				
Aluminum	NA	10000	9900	5200
Arsenic	440	180	150	61
Barium	95	44	40	19
Beryllium	3.4 U	1.2	1.6	1 U
Cadmium	25	7.9	6.7	2.7
Calcium	16000	17000	18000	12000
Chromium	2700	920	920	240
Cobalt	68	29	20	8.6
Copper	910	340	280	77
Iron	59000	22000	17000	6500
Lead	570	190	150	36
Magnesium	3200	2100	2100	1400
Manganese	2600	730	640	270
Mercury	3.7 J	1.6 J	0.86 J	0.41 J
Nickel	49	19	15	9
Vanadium	72	36	39	30
Zinc	4800	1900	1300	460
TOC/TCO (mg/Kg)				
Total Organic Carbon	234000	322000	280000	188000
Wet Parameters (mg/Kg)				
Chromium VI	29	9.9	9.9	2.6

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TABLE 2-262
SEDIMENT CORE DATA HITS TABLE - SC08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC0801	SC0812	SC0823	SC0834
Metals (mg/Kg)				
Aluminum	21500	5200	1800	1700
Arsenic	1250	140	20 U	20 U
Barium	93.5	20	7.5	6.3
Cadmium	22.4	3.6	1.5 U	1.4 U
Calcium	8670	3700	880	480
Chromium	1430	92	5.6	5.5
Cobalt	31.1	4.5	3 U	2.9 U
Copper	1410	130	3 U	2.9 U
Iron	58200	7700	1800	2000
Lead	676	56	10 U	9.8 U
Magnesium	2090	750	560	680
Manganese	591	170	35	25
Mercury	14	1	0.025 U	0.025 U
Vanadium	66.9	12	3 U	2.9 U
Zinc	2650	680	64	43
TOC/TCO (mg/Kg)				
Total Organic Carbon	NA	85000	9220	4490 J
Wet Parameters (mg/Kg)				
Chromium VI	15	0.99	0.060	0.059

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TABLE 2-263
SEDIMENT CORE DATA HITS TABLE - SC09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC0901	SC0912	SC0923	SC0934
Metals (mg/Kg)				
Aluminum	7100	7200	5200	4600
Arsenic	89	31	40	32
Barium	19	24	14	15
Calcium	1800	2300	1900	2200
Chromium	190	33	68	67
Cobalt	4.9	5	3.4	3.3 U
Copper	160	58	73	62
Iron	13000	9500	8000	6300
Lead	69	19	25	20
Magnesium	2600	3000	1900	1600
Manganese	140	120	120	120
Mercury	1.2	0.4	0.37	0.28
Nickel	7.1	7.8	6.7	6.6 U
Potassium	1000 U	1500	1100 U	1100 U
Vanadium	19	19	11	10
Zinc	260	740	470	420
TOC/TCO (mg/Kg)				
Total Organic Carbon	39800	37100	26900	24900
Wet Parameters (mg/Kg)				
Chromium VI	2.0	0.35	0.73	0.72

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TABLE 2-264
SEDIMENT CORE DATA HITS TABLE - SC10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC1001	SC1012	SC1023	SC1034
Metals (mg/Kg)				
Aluminum	5300	4600	6000	6300
Arsenic	67	21	20 U	19 U
Barium	19	17	30	28
Calcium	2300	1300	1100	1400
Chromium	130	28	12	12
Cobalt	3.6	3.3	4	4.5
Copper	47	16	15	20
Iron	11000	6500	6800	8000
Lead	28	10 U	9.8 U	9.6 U
Magnesium	1000	1500	2200	2600
Manganese	110	74	74	88
Mercury	0.18	0.033	0.025 U	0.025 U
Nickel	6.6 U	6 U	6.8	10
Potassium	1100 U	1000 U	1000	980 U
Vanadium	11	9.2	13	14
Zinc	150	96	80	73
TOC/TCO (mg/Kg)				
Total Organic Carbon	23000	5970 J	1070 J	940 J
Wet Parameters (mg/Kg)				
Chromium VI	1.4	0.30	0.13	0.13

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TABLE 2-265
SEDIMENT CORE DATA HITS TABLE - SC11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC1101	SC1112	SC1123	SC1134
Metals (mg/Kg)				
Aluminum	11500	13000	14000	17000
Arsenic	97	110	97	99
Barium	97	110	110	120
Beryllium	0.85 U	1	1	1.2
Cadmium	4.2	6.2	6	7.2
Calcium	5750	5200	4900	6000
Chromium	310	270	240	370
Cobalt	18.5	22	20	21
Copper	215	250	240	340
Iron	29000	32000	29000	29000
Lead	250	400	460	1200
Magnesium	4100	4300	4500	5300
Manganese	525	630	480	440
Mercury	1.7	1.8	1.7	2.2
Nickel	29.5	38	35	45
Potassium	1100	1200	1300	1400
Silver	1.3 U	1.1 U	1.4 U	4.6
Vanadium	47.5	58	56	71
Zinc	960	1400	1300	1400
TOC/TCO (mg/Kg)				
Total Organic Carbon	117500	107000	109000	101000
Wet Parameters (mg/Kg)				
Chromium VI	3.3	2.9	2.6	4.0

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TABLE 2-266
SEDIMENT CORE DATA HITS TABLE - SC12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC1201	SC1212	SC1223	SC1234
Metals (mg/Kg)				
Aluminum	17000	17000	17000	20000
Arsenic	130	100	100	120
Barium	140	130	130	140
Beryllium	1.1	1.3	1.3	1.5
Cadmium	10	11	9.3	11
Calcium	6900	6200	5400	6300
Chromium	400	390	470	740
Cobalt	23	21	22	22
Copper	370	380	380	460
Iron	37000	33000	30000	34000
Lead	520	800	1200	1300
Magnesium	5200	5400	5000	5500
Manganese	960	640	500	470
Mercury	2.6	2.5	2.4	2.7
Nickel	39	40	40	41
Potassium	1500	1500	1500	1560
Selenium	7.6 U	8.8 U	8.5 U	10
Silver	1.2 U	3.1	3.5	3.6
Vanadium	64	67	68	86
Zinc	1800	1800	1700	1700
TOC/TCO (mg/Kg)				
Total Organic Carbon	112000	110000	105000	105000
Wet Parameters (mg/Kg)				
Chromium VI	4.3	4.2	5.0	7.9

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TABLE 2-267
SEDIMENT CORE DATA HITS TABLE - SC13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	SC1301	SC1312	SC1323	SC1334
Metals (mg/Kg)				
Aluminum	22000	16000	9400	11000
Arsenic	120	89	45	59
Barium	120	72	78	100
Beryllium	1.5	1	1 U	1 U
Cadmium	12	8.4	3.95	4.3
Calcium	6300	5900	13500	18000
Chromium	600	330	200	240
Cobalt	28	18	8.5	9.9
Copper	460	410	210	250 J
Iron	32000	18000	11500	14000
Lead	810	340	130	200
Magnesium	5300	3100	2100	2900
Manganese	370	210	180	240
Mercury	2.1 J	2 J	0.95 J	1.1 J
Nickel	37	19	10.5	14
Potassium	1400	780 U	1000 U	1000 U
Silver	1.8	1.2 U	1.5 U	1.5 U
Sodium	750	780 U	1000 U	1000 U
Vanadium	87	41	30	35
Zinc	2500	2200	815	1000
TOC/TCO (mg/Kg)				
Total Organic Carbon	115000	143000	275000	306000
Wet Parameters (mg/Kg)				
Chromium VI	6.4	3.5	2.1	2.6

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TABLE 2-268. SUMMARY OF GROUNDWATER RESULTS
WELLS G&H SUPERFUND SITE (OU3)

Analyte	EPA MCL	Secondary MCL	Flow Zone:	Shallow Overburden															
			Sample Name:	MW-003	MW-004	MW-005	MW-006	MW-007	MW-008	MW-009S	MW-010S	MW-011S	S88S	S89S	S92S	S92S Duplicate	S93S	S93S Duplicate
			Screen Interval:	9.5-19.5 ft	9.5-19.5 ft	4-14 ft	9.5-19.5 ft	9.5-19.5 ft	4-14 ft	4-14 ft	4-14 ft	4-14 ft	7-9 ft	27.87-37.87 ft	9-14 ft	9-14 ft	10-14 ft	10-14 ft
			Date:	4/18/2002	4/19/2002	4/18/2002	4/22/2002	4/19/2002	4/18/2002	4/23/2002	4/22/2002	4/26/2002	3/7/2002	10/16/2002	3/11/2002	3/11/2002	3/8/2002	3/8/2002
Aluminum		50-200		56.8	97.3	54.1	36.8 J	73.4	22.8	188	70.4	53.4	15.5 U	324	12.3 UJ	12.8 UJ	10 UJ	10.1 UJ
Antimony	6			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Arsenic	10			20 N	44.2 N	1.9 N	37.9	15 N	3.4 N	8	142	49.2	83.6	0.49	11	10.6	0.56	0.55
Barium	2000			78.2	83	18.9	18.4	84.1	41.1	56.4	86.6	29.1	70.3	19.7	9.8	9.8	44.1	44.3
Beryllium	4			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Cadmium	5			0.05 U	0.05 U	0.15	1.5 J	0.17	0.05 U	0.29 J	0.07 J	0.05 U	0.05 U	0.68	0.05 U	0.05 U	0.3	0.33
Calcium				21800	59400	31400	63000	36000	44300	17600	57400	44200	61400	50800	34700	34700	23600	23700
Chromium	100			2.5 U	3.7 B	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.7 J	5.8	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cobalt				2.7	1 U	1.8	3.2	7.6	2.7	1 U	2.7	1 U	1 U	6.7	1.6 J	2 J	1 U	1 U
Copper	1300	1000		1 U	1 U	1.1	1 U	1.2	1 U	1.4 J	1.7 J	1 U	1 UJ	1 UJ	1 UJ	1 UJ	2.4 J	2.2 J
Iron		300		25000	25200	1570	1970	21300	1720	5420	18600	19900	42200	677	1740	1810	152	114
Lead	15			0.2	0.28	0.87	0.19 UJ	0.26	0.16	0.85 UJ	0.37 UJ	0.18 UJ	0.21	0.43	0.1 U	0.1 U	0.22	0.16 J
Magnesium				4040	10800	6430	13300	8000	8610	3840	10300	8090	10600	13400	7630	7620	5100	5140
Manganese		50		1220	2770	484	2160	820	1390	581	1390	1820	2800	5930	283	288	223	223
Mercury	2			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel				2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3 J	2.5 U	2.5 U	2.5 U	2.5 U
Potassium				2700 E	3660 E	3150 E	2600	3750 E	3080 E	2710	4500	5630	3290	2960	1270	1280	3150	3180
Selenium	50			1.3 B	1.2 B	0.78 B	1.9	0.82 B	1.2 B	1.1	1.3	1.5	1.2	1 J	0.71 J	0.69 J	1.3	1.4
Silver		100		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 J	0.15 U	0.1 U	0.1 U	0.1 U	0.1 U
Sodium				79900 E	87600 E	31900 E	33200	58200 E	52500 E	56700	99100	114000	116000	35700	31100	31000	52700	53100
Thallium	2			0.1 U	0.1 U	0.1 U	0.31	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vanadium				2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.9 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Zinc		5000		5 U	30	21.6	57.2	108	11.2	5 U	9.3 J	5 U	24.8	5 U	5 U	5 U	10.4	10.8
Cyanide	200			5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chromium VI				5 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Analyte	EPA MCL	Secondary MCL	Flow Zone:	Medium Overburden							Deep Overburden					
			Sample Name:	MW-009M	MW-010M	MW-011M	MW-011M Duplicate	S88M	S92M	S93M	MW-009D	MW-010D	MW-011D	S88D	S92D	S93D
			Screen Interval:	40-50 ft	40-50 ft	40-50 ft	40-50 ft	37-39 ft	37-39 ft	41.5-43.5 ft	81.5-91.5 ft	88.5-98.5 ft	81-91 ft	77-79 ft	76.5-78.5 ft	77-79 ft
			Date:	4/23/2002	4/25/2002	4/26/2002	4/26/2002	3/7/2002	3/11/2002	3/8/2002	4/23/2002	4/25/2002	4/26/2002	3/7/2002	3/12/2002	3/8/2002
Aluminum		50-200		93.5	186	102	104	9.3 UJ	9.8 UJ	12.4 UJ	52.4	120	117	16.8 U	44.7 U	66.1
Antimony	6			0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Arsenic	10			2.9	1.9	1.7	1.7	4.3	0.4	1.4	0.68	2	0.57	1.4	0.7	0.87
Barium	2000			54.7	49.3	59.1	59.1	81.8	14.2	71.5	21	77.4	14.4	48.9	17.3	24.1
Beryllium	4			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Cadmium	5			0.05 U	0.1 J	0.09 J	0.09 J	0.05 U	0.13	0.05 U	0.1 J	0.05 J	0.09 J	0.29	0.05 U	0.28
Calcium				33900	35300	36300	36200	46500	41900	28500	53700	57200	49000	55000	46500	38200
Chromium	100			2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cobalt				3.1	4	3.5	3.7	2.4	1 U	1 U	5.1	1.1 J	1.6 J	1.9 J	1 U	9.2
Copper	1300	1000		1 J	1.5 J	1.7 J	1.4 J	1 UJ	1 UJ	1 UJ	1 U	1.1 J	1.3 J	2.8 J	1 UJ	2.3 J
Iron		300		7360	874	519	492	7690	25 U	19300	74.5	2070	189	49.6 J	205	1620
Lead	15			0.2 UJ	0.3 UJ	0.3 UJ	0.28 UJ	0.22	0.15 J	0.1 U	0.12 UJ	0.4 UJ	0.21 UJ	0.21	0.7	0.43
Magnesium				10700	8890	7050	7030	8650	10300	5880	14200	11200	14800	10100	11500	7740
Manganese		50		551	1260	2280	2280	1340	2.8	537	197	1140	225	2150	18.2	2650
Mercury	2			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel				2.5 U	2.6 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.3 J	2.5 U	3 J
Potassium				4690	4590	4380	4420	4730	2890	6750	4410	5590	4150	6410	2960	3750
Selenium	50			1 J	1.6	1.2	1.2	0.96 J	0.72 J	1 J	1 J	0.97 J	1 J	0.92 J	1.1	1.1
Silver		100		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sodium				50000	45300	86300	86500	62400	30900	53600	38100	51900	30400	58600	30600	49000
Thallium	2			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vanadium				2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Zinc		5000		5 U	11.7	6.5 J	6.5 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyanide	200			5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chromium VI				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

All results in micrograms per liter (ug/l)

Table presents compounds with detected values and non-detect values in excess of comparison criteria.

ft - feet below ground surface

N/A - Not Analyzed or Not Available

- Identifies detected concentrations in excess of MCLs.

- Identifies detected concentrations in excess of Secondary MCLs.

B - Concentration detected is greater than the instrument detection limit but less than the reporting limit.

U - Not detected above given laboratory reporting limit

N - Spiked sample recovery not within control limits

E - Estimated value due to interference

J - Estimated concentration

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TABLE 3-1

SELECTION OF EXPOSURE PATHWAYS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current [a]	Sediment	Sediment	Stations 13/TT-27, JY, WW, BW, 10, 11, 12, 15, 18, 19, 20, 21, TT-28, TT-29, TT-31, TT-32, MP, UF, AO, LF, UM, LM, 06, 04, and 02	Recreational User	Adult	Dermal	None	It is unlikely that area residents currently use the Aberjona River for recreation at these stations due to their isolated nature.
						Ingestion	None	It is unlikely that area residents currently use the Aberjona River for recreation at these stations due to their isolated nature.
					Young Child	Dermal	None	It is unlikely that area residents currently use the Aberjona River for recreation at these stations due to their isolated nature.
						Ingestion	None	It is unlikely that area residents currently use the Aberjona River for recreation at these stations due to their isolated nature.
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	Recreational User	Adult	Dermal	Quant	Nearby residents may currently use the Aberjona River for recreation at these stations with high frequency.
						Ingestion	Quant	Nearby residents may currently use the Aberjona River for recreation at these stations with high frequency.
					Young Child	Dermal	Quant	Nearby residents may currently use the Aberjona River for recreation at these stations with high frequency.
						Ingestion	Quant	Nearby residents may currently use the Aberjona River for recreation at these stations with high frequency.
			Stations NR, 14, 22/TT-22, WH, WG, TT-30, CB-07, 16/TT-33, 09, AM, KF, 08, 07/DP, LP, AS, 05, AJRW, and 03	Recreational User	Adult	Dermal	Quant	Area residents may currently use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
					Young Child	Dermal	Quant	Area residents may currently use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
			Station 01	Recreational User	Adult	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
					Young Child	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
	Surface Water	Surface Water	Reach 1, Upper and Lower Reach 2, Reach 3, Reach 4, Reach 5, and Upper Reach 6	Recreational User	Adult	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
					Young Child	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.

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TABLE 3-1

SELECTION OF EXPOSURE PATHWAYS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current (cont.)	Surface Water (cont.)	Surface Water (cont.)	Lower Reach 6 (Sandy Beach)	Recreational User	Adult	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
					Young Child	Dermal	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may currently use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
		Air	Reaches 1 through 6	Recreational User	Adult	Inhalation	None	Due to low levels of VOCs and dilution/dispersion into ambient air, this pathway is considered negligible.
					Young Child	Inhalation	None	Due to low levels of VOCs and dilution/dispersion into ambient air, this pathway is considered negligible.
Current/ Future [a]	Surface Water	Surface Water	Baseflow Surface Water (SW-05 through SW-09)	Recreational User	Adult	Dermal	Quant	Area residents use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
					Young Child	Dermal	Quant	Area residents use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
			Baseflow Surface Water (SW-10)	Recreational User	Adult	Dermal	Quant	Area residents use the Aberjona River for recreation (wading and swimming) in the vicinity of SW10.
						Ingestion	Quant	Area residents use the Aberjona River for recreation (wading and swimming) in the vicinity of SW10.
					Young Child	Dermal	Quant	Area residents use the Aberjona River for recreation (wading and swimming) in the vicinity of SW10.
						Ingestion	Quant	Area residents use the Aberjona River for recreation (wading and swimming) in the vicinity of SW10.
			Storm Event Surface Water (SW-05 through SW-10)	Area Resident	Adult	Dermal	Quant	When surface waters flood into nearby homes during storm events, residents contact contaminants in surface water.
						Ingestion	None	In a flooding scenario, wading but not swimming is expected, and ingestion is unlikely.
					Young Child	Dermal	Quant	When surface waters flood into nearby homes during storm events, residents contact contaminants in surface water.
						Ingestion	None	In a flooding scenario, wading but not swimming is expected, and ingestion is unlikely.

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TABLE 3-1

SELECTION OF EXPOSURE PATHWAYS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future [a] (cont.)	Soil	Surface Soil	Stations NR, DA, KF, AJRW, and 07/DP	Recreational User	Adult	Dermal	Quant	Area residents may be exposed to contaminants in surface soils during recreational activities at these stations.
						Ingestion	Quant	Area residents may be exposed to contaminants in surface soils during recreational activities at these stations.
					Young Child	Dermal	Quant	Area residents may be exposed to contaminants in surface soils during recreational activities at these stations.
						Ingestion	Quant	Area residents may be exposed to contaminants in surface soils during recreational activities at these stations.
			Stations WS/WSS and CB-05	Recreational User	Adult	Dermal	Quant	Nearby residents may be exposed to contaminants in surface soils with high frequency due to proximity to residences.
						Ingestion	Quant	Nearby residents may be exposed to contaminants in surface soils with high frequency due to proximity to residences.
					Young Child	Dermal	Quant	Nearby residents may be exposed to contaminants in surface soils with high frequency due to proximity to residences.
						Ingestion	Quant	Nearby residents may be exposed to contaminants in surface soils with high frequency due to proximity to residences.
			Residential Homes Near River (Stations WS/WSS, CB-05, 07/DP, KF, and AJRW)	Area Resident	Adult	Dermal	Quant	Flooding events may have resulted in contamination of residential yards, resulting in exposures to area residents.
						Ingestion	Quant	Flooding events may have resulted in contamination of residential yards, resulting in exposures to area residents.
					Young Child	Dermal	Quant	Flooding events may have resulted in contamination of residential yards, resulting in exposures to area residents.
						Ingestion	Quant	Flooding events may have resulted in contamination of residential yards, resulting in exposures to area residents.
	Surface Water/ Sediment	Fish Fillet Tissue	Reaches 3, 4, 5, and 6	Recreational User	Adult	Dermal	None	Exposure to contaminants in fish unlikely through dermal pathway.
						Ingestion	Quant	Possibility of contaminants in fish exposed to contaminated surface water.
					Older Child	Dermal	None	Exposure to contaminants in fish unlikely through the dermal pathway.
						Ingestion	Quant	Possibility of contaminants in fish exposed to contaminated surface water.
Future [a]	Sediment	Sediment	Stations BW, 10, 11, 12, 15, 18, 19, 20, 21, TT-28, TT-29, TT-32, MP, UF, AO, LF, UM, LM, 06, 04, and 02.	Recreational User	Adult	Dermal	None	It is unlikely that area residents will use the Aberjona River for recreation at these stations due to their isolated nature.
						Ingestion	None	It is unlikely that area residents will use the Aberjona River for recreation at these stations due to their isolated nature.
					Young Child	Dermal	None	It is unlikely that area residents will use the Aberjona River for recreation at these stations due to their isolated nature.
						Ingestion	None	It is unlikely that area residents will use the Aberjona River for recreation at these stations due to their isolated nature.

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TABLE 3-1

SELECTION OF EXPOSURE PATHWAYS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future (cont.)	Sediment (cont.)	Sediment (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	Recreational User	Adult	Dermal	Quant	Nearby residents may use the Aberjona River for recreation at these stations with high frequency.
						Ingestion	Quant	Nearby residents may use the Aberjona River for recreation at these stations with high frequency.
					Young Child	Dermal	Quant	Nearby residents may use the Aberjona River for recreation at these stations with high frequency.
						Ingestion	Quant	Nearby residents may use the Aberjona River for recreation at these stations with high frequency.
			Stations NR, 14, 22/TT-22, WH, WG, TT-30, CB-07, 16/TT-33, 09, AM, KF, 08, 07/DP, LP, AS, 05, 03, JY, WW, 13/TT-27, AJRW, and TT-31	Recreational User	Adult	Dermal	Quant	Area residents may use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
						Ingestion	Quant	Area residents may use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
					Young Child	Dermal	Quant	Area residents may use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
						Ingestion	Quant	Area residents may use the Aberjona River for recreation at these stations with varying frequency, depending on accessibility.
			Station 01	Recreational User	Adult	Dermal	Quant	Area residents may use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
					Young Child	Dermal	Quant	Area residents may use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
			Stations NT-1, NT-2, and NT-3	Recreational User	Adult	Dermal	Quant	Proposed recreational scenario assuming future development of the 38-acre wetland.
						Ingestion	Quant	Proposed recreational scenario assuming future development of the 38-acre wetland.
					Young Child	Dermal	Quant	Proposed recreational scenario assuming future development of the 38-acre wetland.
						Ingestion	Quant	Proposed recreational scenario assuming future development of the 38-acre wetland.
	Sediment	Sediment Cores	SC05 through SC13	Dredger	Adult	Dermal	Quant	Dermal contact with sediments may occur should dredging of the river be necessary in the future.
						Ingestion	Quant	Incidental ingestion of sediments may occur during dredging.
	Surface Water	Surface Water	Reach 1, Upper and Lower Reach 2, Reach 3, Reach 4, Reach 5, and Upper Reach 6	Recreational User	Adult	Dermal	Quant	Area residents may continue to use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.
					Young Child	Dermal	Quant	Area residents may continue to use the Aberjona River for recreation (wading) with varying frequency, depending on accessibility and surrounding land use.
						Ingestion	None	Since surface waters are shallow, wading but not swimming is expected, and ingestion is unlikely.

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TABLE 3-1

SELECTION OF EXPOSURE PATHWAYS

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future (cont.)	Surface Water (cont.)	Surface Water (cont.)	Lower Reach 6 (Sandy Beach)	Recreational User	Adult	Dermal	Quant	Area residents may continue to use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may continue to use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
					Young Child	Dermal	Quant	Area residents may continue to use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
						Ingestion	Quant	Area residents may continue to use the Aberjona River for recreation (wading and swimming) at Sandy Beach (Station 01).
		Air	Reaches 1 through 6	Recreational User	Adult	Inhalation	None	Due to low levels of VOCs and dilution/dispersion into ambient air, this pathway is considered negligible.
					Young Child	Inhalation	None	Due to low levels of VOCs and dilution/dispersion into ambient air, this pathway is considered negligible.

[a] Exposure assumptions which account for frequency of contact with media from the Aberjona River vary between current and future scenarios. No station is defined as station 17.

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TABLE 3-2.1
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
Combined Data (a)	67-66-3	Chloroform	1 J	1 J	ug/L	SW-05-01	1 / 16	1	1	N/A	0.62 N	5.7	AWQC	Y	ASL
	156-59-2	cis-1,2-Dichloroethene	1	4	ug/L	SW-16-01	3 / 16	1	4	N/A	6.1 N	N/A	N/A	N	BSL
	127-18-4	Tetrachloroethene	2	2	ug/L	SW-05-01	1 / 16	1	2	N/A	0.66 C	0.8	AWQC	Y	ASL
	79-01-6	Trichloroethene	2	2	ug/L	SW-09-01	2 / 16	1	2	N/A	0.028 C	2.7	AWQC	Y	ASL
	5103-71-9	alpha-Chlordane	0.0021 J	0.0021 J	ug/L	SW-12-01	1 / 17	0.05	0.0021	N/A	0.19 C	0.0021	AWQC	N	BSL
	33213-65-9	Endosulfan II	0.0015 J	0.0015 J	ug/L	SW-13-01	1 / 17	0.1	0.0015	N/A	22 N	110	AWQC	N	BSL
	5103-74-2	gamma-Chlordane	0.0014 J	0.0014 J	ug/L	SW-11-01	1 / 17	0.05	0.0014	N/A	0.19 C	0.0021	AWQC	N	BSL
	1024-57-3	Heptachlor epoxide	0.0011 J	0.0019 J	ug/L	SW-12-01	3 / 17	0.05	0.0019	N/A	0.0074 C	0.0001	AWQC	Y	ASL
	72-43-5	Methoxychlor	0.015 J	0.015 J	ug/L	SW-11-01	1 / 17	0.5	0.015	N/A	18 N	N/A	N/A	N	BSL
	7429-90-5	Aluminum	27.3	2180	ug/L	SW-10-01	15 / 17	31.1 - 36.9	2180	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	1.3	1.5	ug/L	SW-10-01	2 / 17	1.1 - 1.2	1.5	N/A	1.5 N	14	AWQC	N	BSL
	7440-38-2	Arsenic	2.8	77.1	ug/L	SW-10-01	13 / 17	3.4 - 13.9	77.1	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	29.2	54.4	ug/L	SW-10-01	17 / 17	N/A	54.4	N/A	260 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	0.043	0.18	ug/L	SW-10-01	3 / 17	0.035 - 0.1	0.18	N/A	7.3 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	0.16	2.5	ug/L	SW-10-01	3 / 17	0.099 - 1.5	2.5	N/A	1.8 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	28100	87200	ug/L	SW-14-01	17 / 17	N/A	87200	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	0.72	146	ug/L	SW-10-01	17 / 17	N/A	146	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	0.43	4.8	ug/L	SW-10-01	8 / 17	0.4 - 1.5	4.8	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	1.7	111	ug/L	SW-10-01	17 / 17	N/A	111	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	304	8470	ug/L	SW-10-01	17 / 17	N/A	8470	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	0.94	75.9 J	ug/L	SW-10-01	11/ 17	0.74 - 0.85	75.9	N/A	15 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	5030	12100	ug/L	SW-12-01	17 / 17	N/A	12100	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	70.9	777.5	ug/L	SW-16-01	17 / 17	N/A	777.5	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.04 J	0.88	ug/L	SW-10-01	8 / 17	0.08 - 0.2	0.88	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	0.89	6.2	ug/L	SW-10-01	17 / 17	N/A	6.2	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3850	8040	ug/L	SW-12-01	17 / 17	N/A	8040	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	49000	73200	ug/L	SW-12-01	17 / 17	N/A	73200	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.4925 J	7.4	ug/L	SW-10-01	14 / 17	0.55 - 1.2	7.4	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	10.8	626 J	ug/L	SW-10-01	16 / 17	4	626	N/A	1100 N	9100	AWQC	N	BSL

(a) Data presented are from surface water samples SW-01-01, SW-02-01, SW-03-01, SW-04-01, SW-05-01, SW-06-01, SW-07-01, SW-08-01, SW-09-01, SW-10-01, SW-11-01, SW-12-01, SW-13-01, SW-14-01, SW-15-01, SW-16-01, and SW-18-01.
(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for tap water (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
Lead value is is a drinking water criterion protective of blood lead levels in children (USEPA, 2002e).
PRG for chromium VI has been used for chromium.
PRG for chlordane used for gamma-chlordane and alpha-chlordane.
PRG for endosulfan used for endosulfan II.
PRG for mecury chloride used for mercury.
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic
AWQC = Ambient Water Quality Criterion for Human Health (2002d)

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TABLE 3-2.1.1
COPCs DETECTED IN SURFACE WATER - REACH 1
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 1 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 6	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 6	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 6	1
	1024-57-3	Heptachlor epoxide	0.0011 J	0.0019 J	ug/L	SW-12-01	3 / 7	0.05
	7440-38-2	Arsenic	11.6	77.1	ug/L	SW-10-01	7 / 7	N/A
	7440-43-9	Cadmium	0.16	2.5	ug/L	SW-10-01	2 / 7	0.1 - 0.15
	7440-47-3	Chromium	2.2	146	ug/L	SW-10-01	7 / 7	N/A
	7439-92-1	Lead	0.94	75.9 J	ug/L	SW-10-01	4 / 7	0.74 - 0.85
	7439-96-5	Manganese	316	691	ug/L	SW-10-01	7 / 7	N/A
	7439-97-6	Mercury	0.12	0.88	ug/L	SW-10-01	3 / 7	0.08 - 0.095

(a) Data presented are from surface water samples SW-10-01 through SW-15-01, and SW-18-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.2
COPCs DETECTED IN SURFACE WATER - UPPER REACH 2
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Upper Reach 2 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 2	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 2	1
	79-01-6	Trichloroethene	2	2	ug/L	SW-16-01	2 / 2	N/A
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 2	0.05
	7440-38-2	Arsenic	11.5	19.75	ug/L	SW-16-01	2 / 2	N/A
	7440-43-9	Cadmium	0.23	0.23	ug/L	SW-16-01	1 / 2	1.5
	7440-47-3	Chromium	4.3	12.1	ug/L	SW-16-01	2 / 2	N/A
	7439-92-1	Lead	1.8	7.7 J	ug/L	SW-16-01	2 / 2	N/A
	7439-96-5	Manganese	644 J	777.5	ug/L	SW-16-01	2 / 2	N/A
	7439-97-6	Mercury	0.1475 J	0.1475 J	ug/L	SW-16-01	1 / 2	0.20

(a) Data presented are from surface water samples SW-09-01 and SW-16-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.3
COPCs DETECTED IN SURFACE WATER - LOWER REACH 2
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Lower Reach 2 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 1	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 1	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 1	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 1	0.05
	7440-38-2	Arsenic	6.8	6.8	ug/L	SW-08-01	1 / 1	N/A
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 1	1.4
	7440-47-3	Chromium	2.2	2.2	ug/L	SW-08-01	1 / 1	N/A
	7439-92-1	Lead	ND	ND	ug/L	ND	0 / 1	0.85
	7439-96-5	Manganese	356 J	356 J	ug/L	SW-08-01	1 / 1	N/A
	7439-97-6	Mercury	ND	ND	ug/L	ND	0 / 1	0.20

(a) Data presented are from surface water sample SW-08-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.4
COPCs DETECTED IN SURFACE WATER - REACH 3
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 3 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 1	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 1	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 1	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 1	0.05
	7440-38-2	Arsenic	ND	ND	ug/L	ND	0 / 1	14
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 1	0.099
	7440-47-3	Chromium	3.1	3.1	ug/L	SW-07-01	1 / 1	N/A
	7439-92-1	Lead	4.3	4.3	ug/L	SW-07-01	1 / 1	N/A
	7439-96-5	Manganese	585	585	ug/L	SW-07-01	1 / 1	N/A
	7439-97-6	Mercury	0.22 J	0.22 J	ug/L	SW-07-01	1 / 1	N/A

(a) Data presented are from surface water sample SW-07-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.5
COPCs DETECTED IN SURFACE WATER - REACH 4
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 4 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 1	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 1	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 1	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 1	0.05
	7440-38-2	Arsenic	ND	ND	ug/L	ND	0 / 1	6.5
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 1	0.099
	7440-47-3	Chromium	4.3	4.3	ug/L	SW-06-01	1 / 1	N/A
	7439-92-1	Lead	5.7	5.7	ug/L	SW-06-01	1 / 1	N/A
	7439-96-5	Manganese	504	504	ug/L	SW-06-01	1 / 1	N/A
	7439-97-6	Mercury	ND	ND	ug/L	ND	0 / 1	0.20

(a) Data presented are from surface water sample SW-06-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.6
COPCs DETECTED IN SURFACE WATER - REACH 5
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 5 (a)	67-66-3	Chloroform	1 J	1 J	ug/L	SW-05-01	1 / 1	N/A
	127-18-4	Tetrachloroethene	2	2	ug/L	SW-05-01	1 / 1	N/A
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 1	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 1	0.05
	7440-38-2	Arsenic	ND	ND	ug/L	ND	0 / 1	3.4
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 1	0.099
	7440-47-3	Chromium	0.85	0.85	ug/L	SW-05-01	1 / 1	N/A
	7439-92-1	Lead	ND	ND	ug/L	ND	0 / 1	0.84
	7439-96-5	Manganese	320	320	ug/L	SW-05-01	1 / 1	N/A
	7439-97-6	Mercury	ND	ND	ug/L	ND	0 / 1	0.20

(a) Data presented are from surface water sample SW-05-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.7
COPCs DETECTED IN SURFACE WATER - UPPER REACH 6
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Upper Reach 6 (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 3	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 3	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 3	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 3	0.05
	7440-38-2	Arsenic	2.8	5.2	ug/L	SW-03-01	2 / 3	6.5
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 3	0.099 - 0.1
	7440-47-3	Chromium	0.72	3.7	ug/L	SW-03-01	3 / 3	N/A
	7439-92-1	Lead	1.7	7.5 J	ug/L	SW-03-01	2 / 3	0.85
	7439-96-5	Manganese	97.4	317	ug/L	SW-04-01	3 / 3	N/A
	7439-97-6	Mercury	0.062 J	0.069 J	ug/L	SW-03-01	2 / 3	0.20

(a) Data presented are from surface water samples SW-02-01 through SW-04-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.1.8
COPCs DETECTED IN SURFACE WATER - LOWER REACH 6 (SANDY BEACH)
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Lower Reach 6 (Sandy Beach) (a)	67-66-3	Chloroform	ND	ND	ug/L	ND	0 / 1	1
	127-18-4	Tetrachloroethene	ND	ND	ug/L	ND	0 / 1	1
	79-01-6	Trichloroethene	ND	ND	ug/L	ND	0 / 1	1
	1024-57-3	Heptachlor epoxide	ND	ND	ug/L	ND	0 / 1	0.05
	7440-38-2	Arsenic	3.1	3.1	ug/L	SW-01-01	1 / 1	N/A
	7440-43-9	Cadmium	ND	ND	ug/L	ND	0 / 1	0.099
	7440-47-3	Chromium	1.5	1.5	ug/L	SW-01-01	1 / 1	N/A
	7439-92-1	Lead	4.1 J	4.1 J	ug/L	SW-01-01	1 / 1	N/A
	7439-96-5	Manganese	70.9	70.9	ug/L	SW-01-01	1 / 1	N/A
	7439-97-6	Mercury	0.04 J	0.04 J	ug/L	SW-01-01	1 / 1	N/A

(a) Data presented are from surface water sample SW-01-01; only COPCs selected on Table 3-2.1 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
Combined Data (a)	71-55-6	1,1,1-Trichloroethane	0.059 J	0.059 J	mg/Kg	SD-13-01-TR	1 / 52	0.011 - 0.309	0.059	N/A	120 N	N/A	N/A	N	BSL
	540-59-0	1,2-Dichloroethene(total)	0.0090 J	0.016 J	mg/Kg	SD-19-01-FW	2 / 38	0.011 - 0.028	0.016	N/A	4.3 N	N/A	N/A	N	BSL
	78-93-3	2-Butanone	0.0103 J	0.29 J	mg/Kg	SD-19-01-FW	8 / 43	0.011 - 0.028	0.29	N/A	730 N	N/A	N/A	N	BSL
	67-64-1	Acetone	0.058 J	4.3 J	mg/Kg	SD-13-01-TR	10 / 45	0.01 - 0.28	4.3	N/A	160 N	N/A	N/A	N	BSL
	71-43-2	Benzene	0.0070 J	0.0090 J	mg/Kg	SD-03-02-ME	3 / 46	0.011 - 0.041	0.0090	N/A	0.6 C	N/A	N/A	N	BSL
	156-59-2	cis-1,2-Dichloroethene	0.018 J	0.42 J	mg/Kg	SD-12-01-ME	7 / 9	0.022 - 0.103	0.42	N/A	4.3 N	N/A	N/A	N	BSL
	100-41-4	Ethylbenzene	0.0090 J	0.0090 J	mg/Kg	SD-13-01-ME	1 / 46	0.011 - 0.041	0.0090	N/A	8.9 C	N/A	N/A	N	BSL
	75-09-2	Methylene chloride	0.028 J	0.10 J	mg/Kg	SD-22-03-FW	2 / 53	0.011 - 0.309	0.10	N/A	9.1 C	N/A	N/A	N	BSL
	127-18-4	Tetrachloroethene	0.12	3.2	mg/Kg	SD-22-02-ME	4 / 48	0.011 - 0.309	3.2	N/A	1.5 C	N/A	N/A	Y	ASL
	108-88-3	Toluene	0.0030 J	0.003 J	mg/Kg	SD-14-03-FW	1 / 38	0.011 - 0.028	0.003	N/A	52 N	N/A	N/A	N	BSL
	79-01-6	Trichloroethene	0.021 J	0.80	mg/Kg	SD-22-02-ME	8 / 48	0.011 - 0.103	0.80	N/A	0.053 C	N/A	N/A	Y	ASL
	91-57-6	2-Methylnaphthalene	0.013 J	0.22 J	mg/Kg	SD-09-06-FW	11 / 51	0.001 - 2.7	0.22	N/A	5.6 N	N/A	N/A	N	BSL
	83-32-9	Acenaphthene	0.0030 J	0.52	mg/Kg	SD-09-06-FW	17 / 52	0.001 - 2.3	0.52	N/A	370 N	N/A	N/A	N	BSL
	208-96-8	Acenaphthylene	0.0010 J	0.48 J	mg/Kg	SD-07-10-FW	16 / 51	0.001 - 2.7	0.48	N/A	5.6 N	N/A	N/A	N	BSL
	120-12-7	Anthracene	0.018 J	1.1 J	mg/Kg	SD-07-09-FW	24 / 52	0.067 - 2.3	1.1	N/A	2200 N	N/A	N/A	N	BSL
	56-55-3	Benzo(a)anthracene	0.040 J	9.6	mg/Kg	SD-07-10-ME	44 / 58	0.067 - 0.87	9.6	N/A	0.62 C	N/A	N/A	Y	ASL
	50-32-8	Benzo(a)pyrene	0.045 J	10	mg/Kg	SD-07-10-ME	43 / 55	0.067 - 2.1	10	N/A	0.062 C	N/A	N/A	Y	ASL
	205-99-2	Benzo(b)fluoranthene	0.045 J	16 J	mg/Kg	SD-07-10-ME	47 / 59	0.067 - 0.87	16	N/A	0.62 C	N/A	N/A	Y	ASL
	191-24-2	Benzo(g,h,i)perylene	0.044 J	5.3	mg/Kg	SD-07-10-ME	27 / 55	0.067 - 2.3	5.3	N/A	5.6 N	N/A	N/A	N	BSL
	207-08-9	Benzo(k)fluoranthene	0.045 J	14 J	mg/Kg	SD-07-05-FW	45 / 58	0.067 - 2.3	14	N/A	6.2 C	N/A	N/A	Y	ASL
	117-81-7	bis(2-Ethylhexyl)phthalate	0.064 J	13 J	mg/Kg	SD-07-05-FW	29 / 50	0.13 - 2.1	13	N/A	35 C	N/A	N/A	N	BSL
	85-68-7	Butylbenzylphthalate	0.13 J	0.62 J	mg/Kg	SD-07-05-FW	6 / 45	0.13 - 2.3	0.62	N/A	1200 N	N/A	N/A	N	BSL
	86-74-8	Carbazole	0.063 J	0.68 J	mg/Kg	SD-07-09-FW	14 / 45	0.13 - 2.3	0.68	N/A	24 C	N/A	N/A	N	BSL
	218-01-9	Chrysene	0.048 J	10	mg/Kg	SD-07-10-ME	46 / 58	0.067 - 0.87	10	N/A	62 C	N/A	N/A	N	BSL
	53-70-3	Dibenz(a,h)anthracene	0.044 J	2.0	mg/Kg	SD-07-10-ME	19 / 53	0.002 - 2.3	2.0	N/A	0.062 C	N/A	N/A	Y	ASL
	132-64-9	Dibenzofuran	0.056 J	0.50	mg/Kg	SD-09-06-FW	6 / 43	0.13 - 2.7	0.50	N/A	29 N	N/A	N/A	N	BSL
	84-66-2	Diethylphthalate	0.24 J	0.24 J	mg/Kg	SD-07-04-FW	1 / 43	0.13 - 2.7	0.24	N/A	4900 N	N/A	N/A	N	BSL
	117-84-0	Di-n-octylphthalate	0.14 J	0.43 J	mg/Kg	SD-07-05-FW	2 / 44	0.13 - 2.7	0.43	N/A	240 N	N/A	N/A	N	BSL
	206-44-0	Fluoranthene	0.042 J	23	mg/Kg	SD-07-10-ME	51 / 59	0.067 - 0.72	23	N/A	230 N	N/A	N/A	N	BSL
	86-73-7	Fluorene	0.014 J	0.81	mg/Kg	SD-09-06-FW	22 / 52	0.001 - 2.3	0.81	N/A	270 N	N/A	N/A	N	BSL
	193-39-5	Indeno(1,2,3-cd)pyrene	0.021 J	6.9	mg/Kg	SD-07-10-ME	33 / 57	0.067 - 2.3	6.9	N/A	0.62 C	N/A	N/A	Y	ASL
	91-20-3	Naphthalene	0.012 J	0.25 J	mg/Kg	SD-09-06-FW	16 / 51	0.001 - 2.7	0.25	N/A	5.6 N	N/A	N/A	N	BSL
	86-30-6	N-nitrosodiphenylamine	0.058 J	0.10 J	mg/Kg	SD-12-03-FW	2 / 43	0.13 - 2.7	0.10	N/A	99 C	N/A	N/A	N	BSL
	85-01-8	Phenanthrene	0.062 J	12	mg/Kg	SD-07-10-ME	40 / 56	0.067 - 0.87	12	N/A	5.6 N	N/A	N/A	Y	ASL
	129-00-0	Pyrene	0.052 J	15	mg/Kg	SD-07-10-ME	49 / 58	0.067 - 0.87	15	N/A	230 N	N/A	N/A	N	BSL

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TABLE 3-2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
	72-54-8	4,4'-DDD	0.00046 J	0.31	mg/Kg	SD-13-03-ME	37 / 54	0.00031 - 0.023	0.31	N/A	2.4 C	N/A	N/A	N	BSL
	72-55-9	4,4'-DDE	0.000089 J	0.13	mg/Kg	SD-13-03-ME	44 / 57	0.00031 - 0.023	0.13	N/A	1.7 C	N/A	N/A	N	BSL
	50-29-3	4,4'-DDT	0.00029 J	0.047	mg/Kg	SD-07-10-FW	34 / 54	0.00031 - 0.023	0.047	N/A	1.7 C	N/A	N/A	N	BSL
	309-00-2	Aldrin	0.00012 J	0.0057	mg/Kg	SD-07-09-FW	18 / 52	0.00015 - 0.012	0.0057	N/A	0.029 C	N/A	N/A	N	BSL
	319-84-6	alpha-BHC	0.00011 J	0.0025 J	mg/Kg	SD-07-05-FW	11 / 52	0.00015 - 0.012	0.0025	N/A	0.09 C	N/A	N/A	N	BSL
	5103-71-9	alpha-Chlordane	0.00028 J	0.093	mg/Kg	SD-13-03-ME	35 / 55	0.00015 - 0.011	0.093	N/A	1.6 C	N/A	N/A	N	BSL
	12672-29-6	Aroclor 1248	0.0081 J	0.17 J	mg/Kg	SD-13-03-ME	8 / 58	0.0031 - 0.44	0.17	N/A	0.22 C	N/A	N/A	N	BSL
	11097-69-1	Aroclor 1254	0.045	2.6	mg/Kg	SD-JY-07	10 / 58	0.0031 - 0.44	2.6	N/A	0.22 C	N/A	N/A	Y	ASL
	11096-82-5	Aroclor 1260	0.011	2.4	mg/Kg	SD-JY-07	18 / 59	0.0031 - 0.44	2.4	N/A	0.22 C	N/A	N/A	Y	ASL
	319-85-7	beta-BHC	0.0001 J	0.0066	mg/Kg	SD-07-07-FW	17 / 55	0.00015 - 0.012	0.0066	N/A	0.32 C	N/A	N/A	N	BSL
	319-86-8	delta-BHC	0.00008 J	0.024 J	mg/Kg	SD-07-05-ME	12 / 50	0.00015 - 0.012	0.024	N/A	0.09 C	N/A	N/A	N	BSL
	60-57-1	Dieldrin	0.00019 J	0.02 J	mg/Kg	SD-14-03-FW	32 / 54	0.00031 - 0.021	0.02	N/A	0.03 C	N/A	N/A	N	BSL
	959-98-8	Endosulfan I	0.00011 J	0.018 J	mg/Kg	SD-14-03-FW	12 / 51	0.00015 - 0.011	0.018	N/A	37 N	N/A	N/A	N	BSL
	33213-65-9	Endosulfan II	0.00024 J	0.0084 J	mg/Kg	SD-07-09-FW	14 / 51	0.00031 - 0.023	0.0084	N/A	37 N	N/A	N/A	N	BSL
	1031-07-8	Endosulfan Sulfate	0.00038 J	0.0039 J	mg/Kg	SD-07-04-FW	3 / 49	0.00031 - 0.023	0.0039	N/A	37 N	N/A	N/A	N	BSL
	72-20-8	Endrin	0.0001 J	0.017 J	mg/Kg	SD-07-05-ME	22 / 53	0.00031 - 0.023	0.017	N/A	1.8 N	N/A	N/A	N	BSL
	7421-36-3	Endrin Aldehyde	0.00047 J	0.01 J	mg/Kg	SD-13-03-FW	14 / 51	0.00031 - 0.023	0.01	N/A	1.8 N	N/A	N/A	N	BSL
	53494-70-5	Endrin Ketone	0.0018 J	0.0029 J	mg/Kg	SD-08-02-FW	3 / 48	0.00031 - 0.023	0.0029	N/A	1.8 N	N/A	N/A	N	BSL
	58-89-9	gamma-BHC (Lindane)	0.00023 J	0.00023 J	mg/Kg	SD-12-01-ME	1 / 48	0.00015 - 0.012	0.00023	N/A	0.44 C	N/A	N/A	N	BSL
	5103-74-2	gamma-Chlordane	0.00012 J	0.65 J	mg/Kg	SD-13-03-ME	35 / 56	0.00015 - 0.012	0.65	N/A	1.6 C	N/A	N/A	N	BSL
	76-44-8	Heptachlor	0.000067 J	0.00082 J	mg/Kg	SD-07-03-FW	10 / 49	0.00015 - 0.012	0.00082	N/A	0.11 C	N/A	N/A	N	BSL
	1024-57-3	Heptachlor Epoxide	0.00029 J	0.0049 J	mg/Kg	SD-22-01-FW	14 / 51	0.00015 - 0.012	0.0049	N/A	0.053 C	N/A	N/A	N	BSL
	72-43-5	Methoxychlor	0.012 J	0.012 J	mg/Kg	SD-07-10-FW	1 / 48	0.0015 - 0.12	0.012	N/A	31 N	N/A	N/A	N	BSL

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TABLE 3-2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
	7429-90-5	Aluminum	1865	34400 J	mg/Kg	SD-13-02-FW	233 / 233	3.3362 - 9.14	34400	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	0.41 J	329 J	mg/Kg	SD-TT-22-01	128 / 215	0.26 - 6.6	329	N/A	3.1 N	N/A	N/A	Y	ASL
	7440-38-2	Arsenic	3.1	4250	mg/Kg	SD-19-01-TR	230 / 231	0.22 - 3.7	4250	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	6	3420	mg/Kg	SD-WW-11	231 / 233	0.018 - 16.3	3420	N/A	540 N	N/A	N/A	Y	ASL
	7440-41-7	Beryllium	0.12	2.9	mg/Kg	SD-19-01-ME	189 / 232	0.016 - 0.65	2.9	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	0.089	34.6	mg/Kg	SD-CB-06-01	201 / 232	0.0049 - 5.7	34.6	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	493	30500 J	mg/Kg	SD-22-03-FW	233 / 233	1.6 - 9.5972	30500	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	3.3 J	24600 J	mg/Kg	SD-WW-08	233 / 233	0.055 - 1	24600	N/A	10000 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	0.79	130 J	mg/Kg	SD-CB-03-06	233 / 233	0.3336 - 0.64	130	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	4.2 J	3760 J	mg/Kg	SD-TT-30-03	233 / 233	0.082 - 0.4799	3760	N/A	310 N	N/A	N/A	Y	ASL
	57-12-5	Cyanide	0.26 J	12.1 J	mg/Kg	SD-WS-08	38 / 80	0.0942 - 1.4	12.1	N/A	120 N	N/A	N/A	N	BSL
	7439-89-6	Iron	2310 J	258000	mg/Kg	SD-19-01-TR	233 / 233	0.57 - 6.9495	258000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	1.9 J	41000 J	mg/Kg	SD-TT-22-01	233 / 233	0.2002 - 0.6	41000	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	184 J	7610 J	mg/Kg	SD-13-03-FW	233 / 233	0.82 - 15.18	7610	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	34.4 J	2640 J	mg/Kg	SD-09-10-FW	233 / 233	0.018 - 0.4799	2640	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.05 J	89.2 J	mg/Kg	SD-TT-30-03	204 / 228	0.0048 - 0.39	89.2	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	0.59 J	177	mg/Kg	SD-CB-04-03	229 / 233	0.15 - 5.3	177	N/A	160 N	N/A	N/A	Y	ASL
	7440-09-7	Potassium	84 J	2030 J	mg/Kg	SD-13-03-FW	219 / 232	2.7 - 1160	2030	N/A	N/A	N/A	N/A	N	NUT
	7782-49-2	Selenium	0.53 J	26.3 J	mg/Kg	SD-13-01-FW	157 / 232	0.053 - 5	26.3	N/A	39 N	N/A	N/A	N	BSL
	7440-22-4	Silver	0.21 J	11.5	mg/Kg	SD-CB-04-02	57 / 212	0.0095 - 2	11.5	N/A	39 N	N/A	N/A	N	BSL
	7440-23-5	Sodium	30.85 J	8880 J	mg/Kg	SD-CB-03-06	189 / 229	0.22 - 708	8880	N/A	N/A	N/A	N/A	N	NUT
	7440-28-0	Thallium	0.2225 J	18.1 J	mg/Kg	SD-BW-03	111 / 222	0.039 - 3	18.1	N/A	0.52 N	N/A	N/A	Y	ASL
	7440-62-2	Vanadium	4.2	163	mg/Kg	SD-WH-04	233 / 233	0.073 - 0.64	163	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	15.2	8750	mg/Kg	SD-CB-04-03	228 / 233	0.16 - 634	8750	N/A	2300 N	N/A	N/A	Y	ASL
	7440-47-3	Chromium VI	1.2 J	32 J	mg/Kg	SD-WW-08	37 / 233	N/A	32	N/A	30 C	N/A	N/A	Y	ASL

(a) Data presented are from sediment samples SD-01-01-FW, SD-01-03-FW, SD-01-05-FW, SD-01-08-FW, SD-03-01-FW, SD-03-02-ME, SD-03-03-FW, SD-05-01-FW, SD-05-02-FW, SD-05-03-FW, SD-07-01-FW (and duplicate), SD-07-03-FW, SD-07-04-FW, SD-07-05-FW, SD-07-05-ME, SD-07-07-FW, SD-07-08-FW, SD-07-09-FW, SD-07-10-FW, SD-07-10-ME, SD-08-01-FW, SD-08-02-FW, SD-08-03-FW, SD-09-01-FW, SD-09-02-FW, SD-09-03-FW, SD-09-04-FW, SD-09-05-FW, SD-09-06-FW, SD-09-07-FW, SD-09-08-FW, SD-09-09-FW, SD-09-10-FW, SD-12-01-ME, SD-12-01-FW, SD-12-02-FW, SD-12-03-FW, SD-13-01-FW, SD-13-01-ME, SD-13-01-TR, SD-13-02-FW, SD-13-03-FW, SD-13-03-ME, SD-14-01-FW, SD-14-02-FW, SD-14-03-FW, SD-16-01-FW, SD-16-02-FW, SD-16-03-FW, SD-19-01-FW (and duplicate), SD-19-01-ME, SD-19-01-TR, SD-22-01-FW, SD-22-01-TR, SD-22-02-FW, SD-22-02-ME, SD-22-03-FW, SD-TT-22-01, SD-TT-22-02, SD-TT-22-03, SD-WS-01 (and duplicate), SD-WS-02 through SD-WS-10, SD-WG-01 through SD-WG-08, SD-WG-09 (and duplicate), SD-WG-10 through SD-WG-19, SD-WG-20 (and duplicate), SD-WH-01 through SD-WH-09, SD-WH-10 (and duplicate), SD-WH-07-TR (and duplicate), SD-WW-01 (and duplicate), SD-WW-02 through SD-WW-07, SD-WW-08, SD-WW-08-02, SD-WW-09 through SD-WW-12, SD-WW-06-TR, SD-TT-27-01, SD-TT-27-02 (and duplicate), SD-TT-27-03, SD-TT-29-01 (and duplicate), SD-TT-29-02, SD-TT-29-03, SD-TT-29-03-TR, SD-CB-01-01 through SD-CB-01-04, SD-CB-01-05 (and duplicate), SD-CB-01-06 through SD-CB-01-10, SD-CB-02-01, SD-CB-02-02, SD-CB-02-03 (and duplicate), SD-CB-02-04 through SD-CB-02-08, SD-CB-02-09 (and duplicate), SD-CB-02-10, SD-CB-03-01 through SD-CB-03-03, SD-CB-03-04 (and duplicate), and SD-CB-03-05 through SD-CB-03-12, SD-BW-01 (and duplicate), SD-BW-02 thorugh SD-BW-05, SD-CB-04-01 through SD-CB-04-05, SD-CB-04-06 (and duplicate), SD-CB-04-07 through SD-CB-04-10, SD-CB-06-01 through SD-CB-06-09, SD-CB-06-10 (and duplicate), SD-KF-01 through SD-KF-04, SD-KF-05 (and duplicate), SD-KF-06 through SD-KF-10, SD-LP-01 through SD-LP-05, SD-LP-06 (and duplicate), SD-LP-07 through SD-LP-11, SD-LP-12 (and duplicate), SD-LP-13 through SD-LP-15, SD-TT-30-03, SD-TT-33-01, SD-TT-33-02, SD-TT-33-02-TR, SD-TT-33-03, SD-NR-01 through SD-NR-05, SD-JY-06 (and duplicate), SD-JY-07 through SD-JY-15, SD-TT-31-01 through SD-TT-31-03, SD-CB-07-03 through SD-CB-07-06, SD-AM-01, SD-AS-01 (and duplicate) and SD-AS-02.

(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for residential soil (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
The most conservative PRG for all noncarcinogenic PAHs has been used for 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)perylene and phenanthrene.
The most conservative PRG for all BHCs has been used for delta-BHC.
PRG for endosulfan has been used for endosulfan I, endosulfan II, and endosulfan sulfate.
PRG for endrin has been used for endrin aldehyde and endrin ketone.
PRG for chromium III used for chromium.
PRG for methylmercury used for mercury.
PRG for cis-1,2-dichloroethene has been used for 1,2-dichloroethene (total)
The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

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TABLE 3-2.2.1
COPCs DETECTED IN SEDIMENT AT STATION NR
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station NR (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 5	1.7 - 2.2
	7440-38-2	Arsenic	106	221	mg/Kg	SD-NR-02	5 / 5	N/A
	7440-39-3	Barium	25.4	65.5	mg/Kg	SD-NR-01	5 / 5	N/A
	7440-43-9	Cadmium	0.95	2.7	mg/Kg	SD-NR-01	4 / 5	0.49
	7440-47-3	Chromium	104	258	mg/Kg	SD-NR-02	5 / 5	N/A
	7440-50-8	Copper	99.3	365	mg/Kg	SD-NR-02	5 / 5	N/A
	7439-92-1	Lead	80.8	249	mg/Kg	SD-NR-02	5 / 5	N/A
	7439-96-5	Manganese	95.4	317	mg/Kg	SD-NR-01	5 / 5	N/A
	7439-97-6	Mercury	0.77	5.9	mg/Kg	SD-NR-03	5 / 5	N/A
	7440-02-0	Nickel	7.8	16.1	mg/Kg	SD-NR-01	5 / 5	N/A
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 5	1.7 - 2.2
	7440-62-2	Vanadium	16.4	32.6	mg/Kg	SD-NR-02	5 / 5	N/A
	7440-66-6	Zinc	226 J	595 J	mg/Kg	SD-NR-01	5 / 5	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 5	N/A

(a) Data presented are from sediment samples SD-NR-01 through SD-NR-05; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.2
COPCs DETECTED IN SEDIMENT AT STATION 14
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 14 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.014
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.014
	56-55-3	Benzo(a)anthracene	0.7 J	1.1 J	mg/Kg	SD-14-01-FW	3 / 3	N/A
	50-32-8	Benzo(a)pyrene	0.89 J	0.89 J	mg/Kg	SD-14-03-FW	1 / 3	2.1
	205-99-2	Benzo(b)fluoranthene	0.92 J	2.1 J	mg/Kg	SD-14-03-FW	3 / 3	N/A
	207-08-9	Benzo(k)fluoranthene	1.1 J	1.1 J	mg/Kg	SD-14-01-FW	1 / 3	2.1 - 2.3
	53-70-3	Dibenz(a,h)anthracene	ND	ND	mg/Kg	ND	0 / 3	2.1 - 2.3
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	mg/Kg	ND	0 / 3	2.1 - 2.3
	85-01-8	Phenanthrene	0.81 J	2.6 J	mg/Kg	SD-14-01-FW	3 / 3	N/A
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 3	0.21 - 0.23
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 3	0.21 - 0.23
	7440-36-0	Antimony	0.85 J	0.99 J	mg/Kg	SD-14-01-FW	3 / 3	N/A
	7440-38-2	Arsenic	49.1	73.4	mg/Kg	SD-14-03-FW	3 / 3	N/A
	7440-39-3	Barium	13.4	18.4	mg/Kg	SD-14-03-FW	3 / 3	N/A
	7440-43-9	Cadmium	0.4	1	mg/Kg	SD-14-03-FW	3 / 3	N/A
	7440-47-3	Chromium	43 J	216	mg/Kg	SD-14-01-FW	3 / 3	N/A
	7440-50-8	Copper	46	64.9	mg/Kg	SD-14-02-FW	3 / 3	N/A
	7439-92-1	Lead	34.5	130 J	mg/Kg	SD-14-01-FW	3 / 3	N/A
	7439-96-5	Manganese	84.9 J	172 J	mg/Kg	SD-14-03-FW	3 / 3	N/A
	7439-97-6	Mercury	0.16 J	1.4 J	mg/Kg	SD-14-02-FW	3 / 3	N/A
	7440-02-0	Nickel	5.4	10.4	mg/Kg	SD-14-01-FW	3 / 3	N/A
	7440-28-0	Thallium	0.81	0.81	mg/Kg	SD-14-01-FW	1 / 3	0.61 - 0.71
	7440-62-2	Vanadium	8.9	13.3	mg/Kg	SD-14-01-FW	3 / 3	N/A
	7440-66-6	Zinc	170	273	mg/Kg	SD-14-03-FW	3 / 3	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 3	N/A

(a) Data presented are from sediment samples SD-14-01-FW, SD-14-02-FW and SD-14-03-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.3
COPCs DETECTED IN SEDIMENT AT STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 22/TT-22 (a)	127-18-4	Tetrachloroethene	0.12	3.164	mg/Kg	SD-22-02-ME	4 / 4	0.205
	79-01-6	Trichloroethene	0.021 J	0.803	mg/Kg	SD-22-02-ME	3 / 4	0.026 - 0.068
	56-55-3	Benzo(a)anthracene	0.3	0.3	mg/Kg	SD-22-02-ME	1 / 3	0.067 - 0.87
	50-32-8	Benzo(a)pyrene	0.2	0.2	mg/Kg	SD-22-02-ME	1 / 2	0.067 - 0.87
	205-99-2	Benzo(b)fluoranthene	0.43 J	0.44	mg/Kg	SD-22-02-ME	2 / 4	0.067 - 0.87
	207-08-9	Benzo(k)fluoranthene	0.29	0.54 J	mg/Kg	SD-22-01-TR	2 / 3	0.067 - 0.87
	53-70-3	Dibenz(a,h)anthracene	0.044 J	0.044 J	mg/Kg	SD-22-02-ME	1 / 3	0.067 - 0.87
	193-39-5	Indeno(1,2,3-cd)pyrene	0.22	0.22	mg/Kg	SD-22-02-ME	1 / 3	0.067 - 0.87
	85-01-8	Phenanthrene	0.49	0.49	mg/Kg	SD-22-02-ME	1 / 3	0.067 - 0.87
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 3	0.0031 - 0.087
	11096-82-5	Aroclor 1260	0.029	0.029	mg/Kg	SD-22-02-ME	1 / 3	0.0031 - 0.087
	7440-36-0	Antimony	0.94 J	329 J	mg/Kg	SD-TT-22-01	5 / 6	0.27 - 2.1
	7440-38-2	Arsenic	5.2 J	87.3 J	mg/Kg	SD-TT-22-01	5 / 6	0.23 - 3.7
	7440-39-3	Barium	20.3	51.4 J	mg/Kg	SD-22-03-FW	8 / 8	0.019 - 0.4
	7440-43-9	Cadmium	0.2	1.7 J	mg/Kg	SD-TT-22-02	7 / 7	0.0049 - 0.6
	7440-47-3	Chromium	7.1 J	85.3 J	mg/Kg	SD-TT-22-02	8 / 8	0.056 - 1
	7440-50-8	Copper	9.6 J	37.5 J	mg/Kg	SD-TT-22-03	8 / 8	0.085 - 0.44
	7439-92-1	Lead	383 J	41000 J	mg/Kg	SD-TT-22-01	8 / 8	0.27 - 0.6
	7439-96-5	Manganese	34.4 J	194 J	mg/Kg	SD-TT-22-03	8 / 8	0.019 - 0.24
	7439-97-6	Mercury	0.05 J	0.5	mg/Kg	SD-22-02-ME	4 / 6	0.0052 - 0.1
	7440-02-0	Nickel	3.9	18	mg/Kg	SD-TT-22-03	8 / 8	0.15 - 0.8
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 6	0.039 - 1.2
	7440-62-2	Vanadium	8.5	50.1	mg/Kg	SD-TT-22-03	8 / 8	0.075 - 0.64
	7440-66-6	Zinc	23	122 J	mg/Kg	SD-TT-22-03	8 / 8	0.17 - 1.7
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 8	N/A

(a) Data presented are from sediment samples SD-22-01-FW, SD-22-01-TR, SD-22-02-FW, SD-22-02-ME, SD-22-03-FW, SD-TT-22-01, SD-TT-22-02, and SD-TT-22-03; only COPCs selected on Table 3-2.2 appear.

(1) Minimum/maximum detected concentration.

Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.4
COPCs DETECTED IN SEDIMENT AT STATION 13/TT-27
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 13/TT-27 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.022 - 0.108
	79-01-6	Trichloroethene	0.037 J	0.037 J	mg/Kg	SD-13-03-ME	1 / 3	0.022 - 0.035
	56-55-3	Benzo(a)anthracene	0.11 J	1.7	mg/Kg	SD-13-01-ME	6 / 6	0.067 - 0.28
	50-32-8	Benzo(a)pyrene	0.15 J	1.7	mg/Kg	SD-13-01-ME	6 / 6	0.067 - 0.28
	205-99-2	Benzo(b)fluoranthene	0.27 J	3.6 J	mg/Kg	SD-13-03-FW	6 / 6	0.067 - 0.28
	207-08-9	Benzo(k)fluoranthene	0.57 J	3.4 J	mg/Kg	SD-13-03-FW	5 / 6	0.067 - 0.28
	53-70-3	Dibenz(a,h)anthracene	0.18	0.33 J	mg/Kg	SD-13-01-FW	3 / 4	0.067 - 0.28
	193-39-5	Indeno(1,2,3-cd)pyrene	0.59 J	1	mg/Kg	SD-13-01-ME	5 / 6	0.067 - 0.28
	85-01-8	Phenanthrene	0.45 J	2.7	mg/Kg	SD-13-01-ME	5 / 6	0.067 - 0.28
	11097-69-1	Aroclor 1254	0.045	0.045	mg/Kg	SD-13-01-TR	1 / 3	0.0031 - 0.022
	11096-82-5	Aroclor 1260	0.079	0.31 J	mg/Kg	SD-13-03-FW	3 / 4	0.0031 - 0.022
	7440-36-0	Antimony	1.7 J	61 J	mg/Kg	SD-13-01-FW	5 / 8	0.27 - 0.77
	7440-38-2	Arsenic	15.9	4210 J	mg/Kg	SD-13-01-FW	9 / 9	0.22 - 1
	7440-39-3	Barium	63.8	387.5	mg/Kg	SD-TT-27-02	9 / 9	0.018 - 0.4
	7440-43-9	Cadmium	2	13.8 J	mg/Kg	SD-13-01-FW	9 / 9	0.35 - 0.6
	7440-47-3	Chromium	61.2 J	725 J	mg/Kg	SD-13-02-FW	9 / 9	0.055 - 1
	7440-50-8	Copper	97.9 J	2340 J	mg/Kg	SD-13-01-FW	9 / 9	0.082 - 0.44
	7439-92-1	Lead	135 J	1270 J	mg/Kg	SD-13-01-FW	9 / 9	0.27 - 0.6
	7439-96-5	Manganese	110.9 J	1050 J	mg/Kg	SD-13-02-FW	9 / 9	0.018 - 0.24
	7439-97-6	Mercury	0.14 J	19.5 J	mg/Kg	SD-13-01-FW	9 / 9	0.005 - 0.02
	7440-02-0	Nickel	12.5	53.4 J	mg/Kg	SD-13-03-FW	9 / 9	0.15 - 0.8
	7440-28-0	Thallium	3.2 J	3.7 J	mg/Kg	SD-13-01-FW	2 / 8	0.039 - 1.14
	7440-62-2	Vanadium	27.4	120 J	mg/Kg	SD-13-03-FW	9 / 9	0.073 - 0.64
	7440-66-6	Zinc	411.5 J	2670 J	mg/Kg	SD-13-03-FW	9 / 9	0.16 - 1.7
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 9	N/A

(a) Data presented are from sediment samples SD-13-01-FW, SD-13-01-ME, SD-13-01-TR, SD-13-02-FW, SD-13-03-FW, SD-13-03-ME, and SD-TT-27-01, SD-TT-27-02 (and duplicate), and SD-TT-27-03; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.5
COPCs DETECTED IN SEDIMENT AT STATION WH
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station WH (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 1	0.309
	79-01-6	Trichloroethene	0.053 J	0.053 J	mg/Kg	SD-12-01-ME	1 / 1	0.103
	56-55-3	Benzo(a)anthracene	0.56 J	0.56 J	mg/Kg	SD-12-01-ME	1 / 2	0.067 - 0.72
	50-32-8	Benzo(a)pyrene	1 J	1 J	mg/Kg	SD-12-01-ME	1 / 1	0.067
	205-99-2	Benzo(b)fluoranthene	1.5 J	1.5 J	mg/Kg	SD-12-01-ME	1 / 2	0.067 - 0.72
	207-08-9	Benzo(k)fluoranthene	0.66 J	0.72 J	mg/Kg	SD-12-01-ME	2 / 2	0.067 - 0.72
	53-70-3	Dibenz(a,h)anthracene	0.32 J	0.32 J	mg/Kg	SD-12-01-ME	1 / 2	0.002 - 0.72
	193-39-5	Indeno(1,2,3-cd)pyrene	0.74 J	0.74 J	mg/Kg	SD-12-01-ME	1 / 2	0.067 - 0.72
	85-01-8	Phenanthrene	0.57 J	0.57 J	mg/Kg	SD-12-01-ME	1 / 2	0.067 - 0.72
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 2	0.0033 - 0.055
	11096-82-5	Aroclor 1260	0.058	0.058	mg/Kg	SD-12-01-ME	1 / 2	0.0033 - 0.055
	7440-36-0	Antimony	9.9	68 J	mg/Kg	SD-12-01-ME	12 / 12	0.27 - 0.74
	7440-38-2	Arsenic	4.7	3230	mg/Kg	SD-12-01-ME	12 / 12	0.22 - 1
	7440-39-3	Barium	53.9	132	mg/Kg	SD-WH-05	12 / 12	0.019 - 0.4799
	7440-43-9	Cadmium	0.87 J	15.1 J	mg/Kg	SD-WH-01	12 / 12	0.037 - 0.6
	7440-47-3	Chromium	17.7	2120	mg/Kg	SD-12-01-ME	12 / 12	0.056 - 1
	7440-50-8	Copper	23.8	2080	mg/Kg	SD-12-01-ME	12 / 12	0.083 - 0.4799
	7439-92-1	Lead	771	2540	mg/Kg	SD-WH-06	12 / 12	0.2476 - 0.6
	7439-96-5	Manganese	51.9	776	mg/Kg	SD-12-01-ME	12 / 12	0.019 - 0.4799
	7439-97-6	Mercury	0.25 J	27.5	mg/Kg	SD-12-01-ME	10 / 11	0.0051 - 0.3294
	7440-02-0	Nickel	11.8	44	mg/Kg	SD-WH-01	12 / 12	0.15 - 0.8
	7440-28-0	Thallium	0.2225 J	1.5	mg/Kg	SD-WH-01	9 / 12	0.044 - 1.2
	7440-62-2	Vanadium	32.3	163	mg/Kg	SD-WH-04	12 / 12	0.074 - 0.64
	7440-66-6	Zinc	181	3230	mg/Kg	SD-WH-01	7 / 12	0.17 - 634
	7440-47-3	Chromium VI	1.4 J	2.8 J	mg/Kg	SD-12-01-ME	3 / 12	N/A

(a) Data presented are from sediment samples SD-WH-01 through SD-WH-09, SD-WH-10 (and duplicate), SD-WH-07-TR (and duplicate), and SD-12-01-ME; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.6
COPCs DETECTED IN SEDIMENT AT STATION NT-1
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station NT-1 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 2	0.237 - 0.309
	79-01-6	Trichloroethene	0.042 J	0.053 J	mg/Kg	SD-12-01-ME	2 / 2	0.079 - 0.103
	56-55-3	Benzo(a)anthracene	0.13 J	0.56 J	mg/Kg	SD-12-01-ME	3 / 4	0.067 - 0.4
	50-32-8	Benzo(a)pyrene	0.16 J	1 J	mg/Kg	SD-12-01-ME	4 / 4	0.067 - 0.4
	205-99-2	Benzo(b)fluoranthene	0.29 J	1.5 J	mg/Kg	SD-12-01-ME	4 / 4	0.067 - 0.4
	207-08-9	Benzo(k)fluoranthene	0.2 J	0.91 J	mg/Kg	SD-19-01-FW	4 / 4	0.067 - 0.4
	53-70-3	Dibenz(a,h)anthracene	0.046 J	0.32 J	mg/Kg	SD-12-01-ME	2 / 3	0.002 - 0.4
	193-39-5	Indeno(1,2,3-cd)pyrene	0.14 J	0.74 J	mg/Kg	SD-12-01-ME	3 / 4	0.067 - 0.4
	85-01-8	Phenanthrene	0.16 J	0.57 J	mg/Kg	SD-12-01-ME	2 / 3	0.067 - 0.4
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 3	0.0033 - 0.031
	11096-82-5	Aroclor 1260	0.011	0.058	mg/Kg	SD-12-01-ME	2 / 3	0.0033 - 0.031
	7440-36-0	Antimony	0.75 J	68 J	mg/Kg	SD-12-01-ME	21 / 30	0.27 - 6.6
	7440-38-2	Arsenic	6.6	4250	mg/Kg	SD-19-01-TR	32 / 32	0.22 - 1
	7440-39-3	Barium	14.1	205	mg/Kg	SD-19-01-TR	32 / 32	0.019 - 0.4747
	7440-43-9	Cadmium	0.46	15.2 J	mg/Kg	SD-TT-29-03	32 / 32	0.037 - 0.6
	7440-47-3	Chromium	14.3	5500 J	mg/Kg	SD-TT-29-02	32 / 32	0.056 - 1
	7440-50-8	Copper	18.8	2080	mg/Kg	SD-12-01-ME	32 / 32	0.083 - 0.4747
	7439-92-1	Lead	23.9	1240	mg/Kg	SD-12-01-ME	32 / 32	0.2177 - 0.6
	7439-96-5	Manganese	89.5	2020	mg/Kg	SD-19-01-TR	32 / 32	0.019 - 0.4747
	7439-97-6	Mercury	0.1 J	27.5	mg/Kg	SD-12-01-ME	30 / 32	0.0048 - 0.3289
	7440-02-0	Nickel	4.8	79.2	mg/Kg	SD-WG-20	31 / 32	0.15 - 0.8
	7440-28-0	Thallium	0.24 J	18.1 J	mg/Kg	SD-BW-03	21 / 31	0.044 - 1.5
	7440-62-2	Vanadium	10.3	107	mg/Kg	SD-12-01-ME	32 / 32	0.074 - 0.64
	7440-66-6	Zinc	80.1	3770	mg/Kg	SD-TT-29-03	32 / 32	0.17 - 1.7
	7440-47-3	Chromium VI	1.2 J	7.2 J	mg/Kg	SD-TT-29-02	12 / 32	N/A

(a) Data presented are from sediment samples SD-BW-01 (and duplicate), SD-BW-02 through SD-BW-05, SD-12-01-ME, SD-19-01-ME, SD-19-01-FW (and duplicate), SD-19-01-TR, SD-TT-29-01 (and duplicate), SD-TT-29-02, SD-TT-29-03, SD-TT-29-03-TR, SD-WG-01 through SD-WG-08, SD-WG-09 (and duplicate), SD-WG-10 through SD-WG-19, and SD-WG-20 (and duplicate); only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.7
COPCs DETECTED IN SEDIMENT AT STATION NT-2
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station NT-2 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.022 - 0.309
	79-01-6	Trichloroethene	0.042 J	0.053 J	mg/Kg	SD-12-01-ME	2 / 3	0.022 - 0.103
	56-55-3	Benzo(a)anthracene	0.13 J	0.56 J	mg/Kg	SD-12-01-ME	5 / 5	0.067
	50-32-8	Benzo(a)pyrene	0.16 J	1 J	mg/Kg	SD-12-01-ME	5 / 5	0.067
	205-99-2	Benzo(b)fluoranthene	0.29 J	1.5 J	mg/Kg	SD-12-01-ME	5 / 5	0.067
	207-08-9	Benzo(k)fluoranthene	0.2 J	0.8 J	mg/Kg	SD-12-01-FW	5 / 5	0.067
	53-70-3	Dibenz(a,h)anthracene	0.046 J	0.32 J	mg/Kg	SD-12-01-ME	2 / 3	0.002 - 0.73
	193-39-5	Indeno(1,2,3-cd)pyrene	0.079 J	0.74 J	mg/Kg	SD-12-01-ME	4 / 4	0.067
	85-01-8	Phenanthrene	0.16 J	0.57 J	mg/Kg	SD-12-01-ME	3 / 4	0.067 - 0.73
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 3	0.0033 - 0.073
	11096-82-5	Aroclor 1260	0.011	0.058	mg/Kg	SD-12-01-ME	2 / 3	0.0033 - 0.073
	7440-36-0	Antimony	0.75 J	68 J	mg/Kg	SD-12-01-ME	13 / 22	0.27 - 6.6
	7440-38-2	Arsenic	6.6	3230	mg/Kg	SD-12-01-ME	25 / 25	0.22 - 0.4747
	7440-39-3	Barium	14.1	177	mg/Kg	SD-WG-01	25 / 25	0.019 - 0.4747
	7440-43-9	Cadmium	0.46	12.3	mg/Kg	SD-WG-10	25 / 25	0.037 - 0.1899
	7440-47-3	Chromium	14.3	2570	mg/Kg	SD-WG-10	25 / 25	0.056 - 0.4747
	7440-50-8	Copper	18.8	2080	mg/Kg	SD-12-01-ME	25 / 25	0.083 - 0.4747
	7439-92-1	Lead	16.8	1240	mg/Kg	SD-12-01-ME	25 / 25	0.2177 - 0.46
	7439-96-5	Manganese	89.5	1910	mg/Kg	SD-WG-01	25 / 25	0.019 - 0.4747
	7439-97-6	Mercury	0.1 J	27.5	mg/Kg	SD-12-01-ME	24 / 25	0.0048 - 0.3289
	7440-02-0	Nickel	4.8	79.2	mg/Kg	SD-WG-20	25 / 25	0.15 - 0.4747
	7440-28-0	Thallium	0.24 J	1.4	mg/Kg	SD-12-03-FW	14 / 24	0.044 - 1.5
	7440-62-2	Vanadium	10.3	107	mg/Kg	SD-12-01-ME	25 / 25	0.074 - 0.4747
	7440-66-6	Zinc	80.1	2640	mg/Kg	SD-12-01-ME	25 / 25	0.17 - 0.4747
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 25	N/A

(a) Data presented are from sediment samples SD-12-01-ME, SD-12-01-FW through SD-12-03-FW, SD-19-01-ME, SD-WG-01 through SD-WG-08, SD-WG-09 (and duplicate), SD-WG-10 through SD-WG-19, and SD-WG-20 (and duplicate); only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.8
COPCs DETECTED IN SEDIMENT AT STATION NT-3
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station NT-3 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 2	0.237 - 0.309
	79-01-6	Trichloroethene	0.042 J	0.053 J	mg/Kg	SD-12-01-ME	2 / 2	0.079 - 0.103
	56-55-3	Benzo(a)anthracene	0.13 J	0.56 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	50-32-8	Benzo(a)pyrene	0.16 J	1 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	205-99-2	Benzo(b)fluoranthene	0.29 J	1.5 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	207-08-9	Benzo(k)fluoranthene	0.2 J	0.72 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	53-70-3	Dibenz(a,h)anthracene	0.046 J	0.32 J	mg/Kg	SD-12-01-ME	2 / 2	0.002 - 0.067
	193-39-5	Indeno(1,2,3-cd)pyrene	0.14 J	0.74 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	85-01-8	Phenanthrene	0.16 J	0.57 J	mg/Kg	SD-12-01-ME	2 / 2	0.067
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 2	0.0033
	11096-82-5	Aroclor 1260	0.011	0.058	mg/Kg	SD-12-01-ME	2 / 2	0.0033
	7440-36-0	Antimony	0.75 J	68 J	mg/Kg	SD-12-01-ME	12 / 20	0.27 - 6.6
	7440-38-2	Arsenic	6.6	3230	mg/Kg	SD-12-01-ME	22 / 22	0.22 - 0.4747
	7440-39-3	Barium	14.1	177	mg/Kg	SD-WG-01	22 / 22	0.019 - 0.4747
	7440-43-9	Cadmium	0.46	12.3	mg/Kg	SD-WG-10	22 / 22	0.037 - 0.1899
	7440-47-3	Chromium	14.3	2570	mg/Kg	SD-WG-10	22 / 22	0.056 - 0.4747
	7440-50-8	Copper	18.8	2080	mg/Kg	SD-12-01-ME	22 / 22	0.083 - 0.4747
	7439-92-1	Lead	23.9	1240	mg/Kg	SD-12-01-ME	22 / 22	0.2177 - 0.46
	7439-96-5	Manganese	89.5	1910	mg/Kg	SD-WG-01	22 / 22	0.019 - 0.4747
	7439-97-6	Mercury	0.1 J	27.5	mg/Kg	SD-12-01-ME	21 / 22	0.0048 - 0.3289
	7440-02-0	Nickel	4.8	79.2	mg/Kg	SD-WG-20	22 / 22	0.15 - 0.4747
	7440-28-0	Thallium	0.24 J	0.7 J	mg/Kg	SD-WG-01	13 / 22	0.044 - 1.5
	7440-62-2	Vanadium	10.3	107	mg/Kg	SD-12-01-ME	22 / 22	0.074 - 0.4747
	7440-66-6	Zinc	80.1	2640	mg/Kg	SD-12-01-ME	22 / 22	0.17 - 0.4747
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 22	N/A

(a) Data presented are from sediment samples SD-12-01-ME, SD-19-01-ME, SD-WG-01 through SD-WG-08, SD-WG-09 (and duplicate), SD-WG-10 through SD-WG-19, and SD-WG-20 (and duplicate); only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.9
COPCs DETECTED IN SEDIMENT AT STATION WG
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station WG (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 1	0.237
	79-01-6	Trichloroethene	0.042 J	0.042 J	mg/Kg	SD-19-01-ME	1 / 1	0.079
	56-55-3	Benzo(a)anthracene	0.13 J	0.13 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	50-32-8	Benzo(a)pyrene	0.16 J	0.16 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	205-99-2	Benzo(b)fluoranthene	0.29 J	0.29 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	207-08-9	Benzo(k)fluoranthene	0.2 J	0.2 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	53-70-3	Dibenz(a,h)anthracene	0.046 J	0.046 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	193-39-5	Indeno(1,2,3-cd)pyrene	0.14 J	0.14 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	85-01-8	Phenanthrene	0.16 J	0.16 J	mg/Kg	SD-19-01-ME	1 / 1	0.067
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 1	0.0033
	11096-82-5	Aroclor 1260	0.011	0.011	mg/Kg	SD-19-01-ME	1 / 1	0.0033
	7440-36-0	Antimony	0.75 J	24.5 J	mg/Kg	SD-WG-07	11 / 19	0.3628 - 6.6
	7440-38-2	Arsenic	6.6	1450 J	mg/Kg	SD-WG-07	21 / 21	0.3628 - 0.4747
	7440-39-3	Barium	14.1	177	mg/Kg	SD-WG-01	21 / 21	0.031 - 0.4747
	7440-43-9	Cadmium	0.46	12.3	mg/Kg	SD-WG-10	21 / 21	0.063 - 0.1899
	7440-47-3	Chromium	14.3	2570	mg/Kg	SD-WG-10	21 / 21	0.094 - 0.4747
	7440-50-8	Copper	18.8	1330	mg/Kg	SD-WG-07	21 / 21	0.14 - 0.4747
	7439-92-1	Lead	23.9	810	mg/Kg	SD-WG-07	21 / 21	0.2177 - 0.46
	7439-96-5	Manganese	89.5	1910	mg/Kg	SD-WG-01	21 / 21	0.031 - 0.4747
	7439-97-6	Mercury	0.1 J	11.6 J	mg/Kg	SD-WG-07	20 / 21	0.0048 - 0.3289
	7440-02-0	Nickel	4.8	79.2	mg/Kg	SD-WG-20	21 / 21	0.25 - 0.4747
	7440-28-0	Thallium	0.24 J	0.7 J	mg/Kg	SD-WG-01	13 / 21	0.074 - 1.5
	7440-62-2	Vanadium	10.3	104.35	mg/Kg	SD-WG-09	21 / 21	0.13 - 0.4747
	7440-66-6	Zinc	80.1	2080	mg/Kg	SD-WG-10	21 / 21	0.28 - 0.4747
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 21	N/A

(a) Data presented are from sediment samples SD-WG-01 through SD-WG-08, SD-WG-09 (and duplicate), SD-WG-10 through SD-WG-19, SD-WG-20 (and duplicate), and SD-19-01-ME; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.10
COPCs DETECTED IN SEDIMENT AT STATION WW
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station WW (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	ND	ND	mg/Kg	ND	0 / 1	0.61
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	0.33 J	0.33 J	mg/Kg	SD-WW-06-TR	1 / 1	0.61
	207-08-9	Benzo(k)fluoranthene	0.61 J	0.61 J	mg/Kg	SD-WW-06-TR	1 / 1	0.61
	53-70-3	Dibenz(a,h)anthracene	ND	ND	mg/Kg	ND	0 / 1	0.61
	193-39-5	Indeno(1,2,3-cd)pyrene	ND	ND	mg/Kg	ND	0 / 1	0.61
	85-01-8	Phenanthrene	ND	ND	mg/Kg	ND	0 / 1	0.61
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 1	0.05
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 1	0.05
	7440-36-0	Antimony	57.3 J	57.3 J	mg/Kg	SD-WW-06-TR	1 / 2	0.74 - 2
	7440-38-2	Arsenic	4.4 J	54.6 J	mg/Kg	SD-WW-09	14 / 14	1
	7440-39-3	Barium	124	3420	mg/Kg	SD-WW-11	14 / 14	0.4
	7440-43-9	Cadmium	2.8 J	9.6 J	mg/Kg	SD-WW-02	13 / 14	0.048 - 0.6
	7440-47-3	Chromium	3670 J	24600 J	mg/Kg	SD-WW-08	14 / 14	1
	7440-50-8	Copper	178	598	mg/Kg	SD-WW-02	14 / 14	0.44
	7439-92-1	Lead	147 J	495 J	mg/Kg	SD-WW-07	14 / 14	0.6
	7439-96-5	Manganese	95.4	803	mg/Kg	SD-WW-03	14 / 14	0.24
	7439-97-6	Mercury	0.46	1.8	mg/Kg	SD-WW-01	13 / 14	0.09 - 0.24
	7440-02-0	Nickel	18.9	28.9	mg/Kg	SD-WW-08	14 / 14	0.8
	7440-28-0	Thallium	0.86 J	2.7 J	mg/Kg	SD-WW-08	10 / 14	0.65 - 3
	7440-62-2	Vanadium	39.8	103	mg/Kg	SD-WW-04	14 / 14	0.64
	7440-66-6	Zinc	888 J	1890	mg/Kg	SD-WW-08	14 / 14	1.7
	7440-47-3	Chromium VI	4.8 J	32 J	mg/Kg	SD-WW-08	14 / 14	N/A

(a) Data presented are from sediment samples SD-WW-01 (and duplicate), SD-WW-02 through SD-WW-12, SD-WW-08-02, and SD-WW-06-TR; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.11
COPCs DETECTED IN SEDIMENT AT STATION JY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station JY (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	0.23 J	2.6	mg/Kg	SD-JY-07	9 / 10	0.19 - 0.44
	11096-82-5	Aroclor 1260	0.26	2.4	mg/Kg	SD-JY-07	9 / 10	0.19 - 0.44
	7440-36-0	Antimony	3.1	19.5	mg/Kg	SD-JY-08	5 / 10	1.8 - 2.1
	7440-38-2	Arsenic	13.7 J	482	mg/Kg	SD-JY-13	10 / 10	N/A
	7440-39-3	Barium	20	353 J	mg/Kg	SD-JY-07	10 / 10	N/A
	7440-43-9	Cadmium	1.4	21	mg/Kg	SD-JY-07	10 / 10	N/A
	7440-47-3	Chromium	69.6	1710 J	mg/Kg	SD-JY-08	10 / 10	N/A
	7440-50-8	Copper	122 J	741 J	mg/Kg	SD-JY-08	10 / 10	N/A
	7439-92-1	Lead	47.6	1210	mg/Kg	SD-JY-08	10 / 10	N/A
	7439-96-5	Manganese	103	555	mg/Kg	SD-JY-13	10 / 10	N/A
	7439-97-6	Mercury	0.1 J	2.3	mg/Kg	SD-JY-12	7 / 10	0.05 - 0.39
	7440-02-0	Nickel	8.7	150	mg/Kg	SD-JY-07	10 / 10	N/A
	7440-28-0	Thallium	1.7 J	6.9 J	mg/Kg	SD-JY-07	7 / 9	1.5 - 1.6
	7440-62-2	Vanadium	10.2	90.6	mg/Kg	SD-JY-07	10 / 10	N/A
	7440-66-6	Zinc	308	2850	mg/Kg	SD-JY-08	10 / 10	N/A
	7440-47-3	Chromium VI	1.5 J	2.2 J	mg/Kg	SD-JY-08	5 / 10	N/A

(a) Data presented are from sediment samples SD-JY-06 (and duplicate), and SD-JY-07 through SD-JY-15; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.12
COPCs DETECTED IN SEDIMENT AT STATION WS/WSS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station WS/WSS (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	1.2 J	7.2 J	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-38-2	Arsenic	17.7	339	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-39-3	Barium	60.8	200	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-43-9	Cadmium	1.3	16.7	mg/Kg	SD-WS-08	10 / 10	0.1334 - 0.1886
	7440-47-3	Chromium	67.7	1320	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-50-8	Copper	68	686	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7439-92-1	Lead	165	490	mg/Kg	SD-WS-08	10 / 10	0.2002 - 0.2829
	7439-96-5	Manganese	413 J	1420 J	mg/Kg	SD-WS-06	10 / 10	0.3336 - 0.4716
	7439-97-6	Mercury	0.22 J	1.8 J	mg/Kg	SD-WS-02	8 / 8	0.1275 - 0.3418
	7440-02-0	Nickel	17.4 J	46.3 J	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-28-0	Thallium	0.5 J	2.2 J	mg/Kg	SD-WS-08	8 / 10	0.23 - 0.2746
	7440-62-2	Vanadium	22.2	56.1	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-66-6	Zinc	299	3440	mg/Kg	SD-WS-08	10 / 10	0.3336 - 0.4716
	7440-47-3	Chromium VI	1.7 J	1.7 J	mg/Kg	SD-WS-08	1 / 10	N/A

(a) Data presented are from sediment samples SD-WS-01 (and duplicate), and SD-WS-02 through SD-WS-10; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.13
COPCs DETECTED IN SEDIMENT AT STATION TT-30
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station TT-30 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 1	0.53
	7440-38-2	Arsenic	1080 J	1080 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-39-3	Barium	32.7 J	32.7 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-43-9	Cadmium	7.1 J	7.1 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-47-3	Chromium	5310 J	5310 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-50-8	Copper	3760 J	3760 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7439-92-1	Lead	425 J	425 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7439-96-5	Manganese	206 J	206 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7439-97-6	Mercury	89.2 J	89.2 J	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-02-0	Nickel	8	8	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-28-0	Thallium	1.5	1.5	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-62-2	Vanadium	21	21	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-66-6	Zinc	1170	1170	mg/Kg	SD-TT-30-03	1 / 1	N/A
	7440-47-3	Chromium VI	6.9 J	6.9 J	mg/Kg	SD-TT-30-03	1 / 1	N/A

(a) Data presented are from sediment sample SD-TT-30-03; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.14
COPCs DETECTED IN SEDIMENT AT STATION TT-31
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station TT-31 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 3	0.44 - 0.61
	7440-38-2	Arsenic	8.5 J	30.3 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-39-3	Barium	51.6 J	159 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-43-9	Cadmium	2.3 J	5.5 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-47-3	Chromium	123 J	295 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-50-8	Copper	56.7 J	181 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7439-92-1	Lead	190 J	332 J	mg/Kg	SD-TT-31-01	3 / 3	N/A
	7439-96-5	Manganese	213 J	1210 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7439-97-6	Mercury	0.94 J	1.8 J	mg/Kg	SD-TT-31-01	3 / 3	N/A
	7440-02-0	Nickel	19.7	35.6	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-28-0	Thallium	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-62-2	Vanadium	38.1 J	56.5 J	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-66-6	Zinc	280	678	mg/Kg	SD-TT-31-03	3 / 3	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 3	N/A

(a) Data presented are from sediment samples SD-TT-31-01 through SD-TT-31-03; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.15
COPCs DETECTED IN SEDIMENT AT STATION CB-01
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-01 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	0.77 J	4 J	mg/Kg	SD-CB-01-07	4 / 10	0.57 - 2
	7440-38-2	Arsenic	8.2 J	98.7 J	mg/Kg	SD-CB-01-04	10 / 10	N/A
	7440-39-3	Barium	19.35	105	mg/Kg	SD-CB-01-10	8 / 10	13.9 - 16.3
	7440-43-9	Cadmium	1.1 J	16.1 J	mg/Kg	SD-CB-01-02	10 / 10	N/A
	7440-47-3	Chromium	27.5 J	584	mg/Kg	SD-CB-01-02	10 / 10	N/A
	7440-50-8	Copper	58.1 J	1090 J	mg/Kg	SD-CB-01-04	10 / 10	N/A
	7439-92-1	Lead	75 J	648 J	mg/Kg	SD-CB-01-02	10 / 10	N/A
	7439-96-5	Manganese	51.5	1260 J	mg/Kg	SD-CB-01-10	10 / 10	N/A
	7439-97-6	Mercury	0.28 J	4.8 J	mg/Kg	SD-CB-01-04	10 / 10	N/A
	7440-02-0	Nickel	4	31.8 J	mg/Kg	SD-CB-01-02	10 / 10	N/A
	7440-28-0	Thallium	0.425 J	3.1	mg/Kg	SD-CB-01-04	5 / 10	0.58 - 1
	7440-62-2	Vanadium	21.9	114	mg/Kg	SD-CB-01-07	10 / 10	N/A
	7440-66-6	Zinc	58.4	1190	mg/Kg	SD-CB-01-02	10 / 10	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment samples SD-CB-01-01 through SD-CB-01-04, SD-CB-01-05 (and duplicate), and SD-CB-01-06 through SD-CB-01-10; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.16
COPCs DETECTED IN SEDIMENT AT STATION CB-02
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-02 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	0.89 J	2 J	mg/Kg	SD-CB-02-03	10 / 10	N/A
	7440-38-2	Arsenic	7.55 J	56.2 J	mg/Kg	SD-CB-02-06	10 / 10	N/A
	7440-39-3	Barium	13.6	389	mg/Kg	SD-CB-02-07	10 / 10	N/A
	7440-43-9	Cadmium	0.91 J	5.8 J	mg/Kg	SD-CB-02-01	10 / 10	N/A
	7440-47-3	Chromium	17.9 J	248 J	mg/Kg	SD-CB-02-01	10 / 10	N/A
	7440-50-8	Copper	38.3 J	168	mg/Kg	SD-CB-02-01	10 / 10	N/A
	7439-92-1	Lead	67 J	342 J	mg/Kg	SD-CB-02-07	10 / 10	N/A
	7439-96-5	Manganese	34.5 J	108 J	mg/Kg	SD-CB-02-05	10 / 10	N/A
	7439-97-6	Mercury	0.12	0.58	mg/Kg	SD-CB-02-01	10 / 10	N/A
	7440-02-0	Nickel	2.1	12.8 J	mg/Kg	SD-CB-02-04	10 / 10	N/A
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 10	0.54 - 1.7
	7440-62-2	Vanadium	18.5	45.6	mg/Kg	SD-CB-02-04	10 / 10	N/A
	7440-66-6	Zinc	132 J	450 J	mg/Kg	SD-CB-02-09	10 / 10	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment samples SD-CB-02-01, SD-CB-02-02, SD-CB-02-03 (and duplicate), SD-CB-02-04 through SD-CB-02-08, SD-CB-02-09 only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.17
COPCs DETECTED IN SEDIMENT AT CB-03
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-03 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	4.2 J	4.8 J	mg/Kg	SD-CB-03-08	3 / 12	0.43 - 3.5
	7440-38-2	Arsenic	9.1 J	1410	mg/Kg	SD-CB-03-11	12 / 12	N/A
	7440-39-3	Barium	20.7	95.5	mg/Kg	SD-CB-03-08	12 / 12	N/A
	7440-43-9	Cadmium	0.77 J	23.1 J	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7440-47-3	Chromium	38.7 J	768	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7440-50-8	Copper	29.2 J	670 J	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7439-92-1	Lead	24.4 J	443 J	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7439-96-5	Manganese	43.6 J	986	mg/Kg	SD-CB-03-12	12 / 12	N/A
	7439-97-6	Mercury	0.058 J	3.6	mg/Kg	SD-CB-03-12	12 / 12	N/A
	7440-02-0	Nickel	8.7	78.3 J	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7440-28-0	Thallium	1.2	1.5 J	mg/Kg	SD-CB-03-01	3 / 11	0.48 - 1.7
	7440-62-2	Vanadium	13.5	97.4 J	mg/Kg	SD-CB-03-08	12 / 12	N/A
	7440-66-6	Zinc	135	5270	mg/Kg	SD-CB-03-06	12 / 12	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 12	N/A

(a) Data presented are from sediment samples SD-CB-03-01 through SD-CB-03-03, SD-CB-03-04 (and duplicate), and SD-CB-03-05 through SD-CB-03-12; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.18
COPCs DETECTED IN SEDIMENT AT CB-04
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-04 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	0.67 J	7.2	mg/Kg	SD-CB-04-02	10 / 10	N/A
	7440-38-2	Arsenic	16.5	325.5	mg/Kg	SD-CB-04-06	10 / 10	N/A
	7440-39-3	Barium	20.9	109	mg/Kg	SD-CB-04-05	10 / 10	N/A
	7440-43-9	Cadmium	0.41	8.9	mg/Kg	SD-CB-04-05	10 / 10	N/A
	7440-47-3	Chromium	35.2	568	mg/Kg	SD-CB-04-03	10 / 10	N/A
	7440-50-8	Copper	47.7	358	mg/Kg	SD-CB-04-02	10 / 10	N/A
	7439-92-1	Lead	59.6	409	mg/Kg	SD-CB-04-03	10 / 10	N/A
	7439-96-5	Manganese	72.5	2410	mg/Kg	SD-CB-04-05	10 / 10	N/A
	7439-97-6	Mercury	0.18	2.2	mg/Kg	SD-CB-04-02	10 / 10	N/A
	7440-02-0	Nickel	10.1	177	mg/Kg	SD-CB-04-03	10 / 10	N/A
	7440-28-0	Thallium	3.1	5.3	mg/Kg	SD-CB-04-02	2 / 10	0.58 - 1.6
	7440-62-2	Vanadium	18.5	85.4	mg/Kg	SD-CB-04-03	10 / 10	N/A
	7440-66-6	Zinc	112	8750	mg/Kg	SD-CB-04-03	10 / 10	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment samples SD-CB-04-01 through SD-CB-04-05, SD-CB-04-06 (and duplicate), and SD-CB-04-07 through SD-CB-04-10; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.19
COPCs DETECTED IN SEDIMENT AT CB-06
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-06 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	2.2 J	7.8	mg/Kg	SD-CB-06-03	2 / 10	1.7 - 1.9
	7440-38-2	Arsenic	22.4 J	257 J	mg/Kg	SD-CB-06-03	10 / 10	N/A
	7440-39-3	Barium	8.4	59.5	mg/Kg	SD-CB-06-07	10 / 10	N/A
	7440-43-9	Cadmium	0.88	34.6	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7440-47-3	Chromium	31.8	969	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7440-50-8	Copper	39.9	386	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7439-92-1	Lead	19.9	328	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7439-96-5	Manganese	50 J	133 J	mg/Kg	SD-CB-06-05	10 / 10	N/A
	7439-97-6	Mercury	0.05 J	0.56	mg/Kg	SD-CB-06-10	9 / 10	0.04
	7440-02-0	Nickel	6.2	49.4	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7440-28-0	Thallium	1.8 J	6.1	mg/Kg	SD-CB-06-03	9 / 10	1.5
	7440-62-2	Vanadium	10.4	103	mg/Kg	SD-CB-06-01	10 / 10	N/A
	7440-66-6	Zinc	250 J	3840 J	mg/Kg	SD-CB-06-07	10 / 10	N/A
	7440-47-3	Chromium VI	1.3 J	1.3 J	mg/Kg	SD-CB-06-01	1 / 10	N/A

(a) Data presented are from sediment samples SD-CB-06-01 through SD-CB-06-09, and SD-CB-06-10 (and duplicate); only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.20
COPCs DETECTED IN SEDIMENT AT CB-07
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-07 (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 4	1.7 - 2
	7440-38-2	Arsenic	13.3 J	234 J	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-39-3	Barium	13.4	56.8	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-43-9	Cadmium	0.25 J	5.6	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-47-3	Chromium	53.1 J	784	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-50-8	Copper	56.5 J	437	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7439-92-1	Lead	26.2 J	377	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7439-96-5	Manganese	84.3	645 J	mg/Kg	SD-CB-07-04	4 / 4	N/A
	7439-97-6	Mercury	0.09 J	1.4	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-02-0	Nickel	7.8	23.3	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 3	1.4 - 1.6
	7440-62-2	Vanadium	15.8	102	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-66-6	Zinc	74.6	671 J	mg/Kg	SD-CB-07-03	4 / 4	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 4	N/A

(a) Data presented are from sediment samples SD-CB-07-03 through SD-CB-07-06; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.21
COPCs DETECTED IN SEDIMENT AT STATION 16/TT-33
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 16/TT-33 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.013 - 0.026
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 3	0.013 - 0.026
	56-55-3	Benzo(a)anthracene	0.11 J	0.11 J	mg/Kg	SD-TT-33-02-TR	1 / 4	0.13 - 0.84
	50-32-8	Benzo(a)pyrene	0.14 J	0.14 J	mg/Kg	SD-TT-33-02-TR	1 / 4	0.13 - 0.84
	205-99-2	Benzo(b)fluoranthene	0.045 J	0.26	mg/Kg	SD-TT-33-02-TR	2 / 4	0.13 - 0.84
	207-08-9	Benzo(k)fluoranthene	0.045 J	0.099 J	mg/Kg	SD-TT-33-02-TR	2 / 4	0.13 - 0.84
	53-70-3	Dibenz(a,h)anthracene	ND	ND	mg/Kg	ND	0 / 4	0.13 - 0.84
	193-39-5	Indeno(1,2,3-cd)pyrene	0.06 J	0.06 J	mg/Kg	SD-TT-33-02-TR	1 / 4	0.13 - 0.84
	85-01-8	Phenanthrene	0.13 J	0.13 J	mg/Kg	SD-TT-33-02-TR	1 / 4	0.13 - 0.84
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 4	0.011 - 0.084
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 4	0.011 - 0.084
	7440-36-0	Antimony	0.56 J	9.1 J	mg/Kg	SD-TT-33-02	5 / 7	0.34 - 0.74
	7440-38-2	Arsenic	6.4 J	288 J	mg/Kg	SD-TT-33-03	7 / 7	1
	7440-39-3	Barium	10.6	78.4	mg/Kg	SD-TT-33-03	7 / 7	0.4
	7440-43-9	Cadmium	0.1	7.4 J	mg/Kg	SD-TT-33-01	7 / 7	0.6
	7440-47-3	Chromium	3.3 J	2200 J	mg/Kg	SD-TT-33-02	7 / 7	1
	7440-50-8	Copper	7.1	489 J	mg/Kg	SD-TT-33-01	7 / 7	0.44
	7439-92-1	Lead	1.9 J	285 J	mg/Kg	SD-TT-33-03	7 / 7	0.6
	7439-96-5	Manganese	84 J	776	mg/Kg	SD-TT-33-02-TR	7 / 7	0.24
	7439-97-6	Mercury	0.13	5.6 J	mg/Kg	SD-TT-33-03	6 / 7	0.046 - 0.2
	7440-02-0	Nickel	1.6	22	mg/Kg	SD-TT-33-03	7 / 7	0.8
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 7	0.31 - 1.1
	7440-62-2	Vanadium	4.2	42.2	mg/Kg	SD-TT-33-03	7 / 7	0.64
	7440-66-6	Zinc	36.4 J	1090 J	mg/Kg	SD-TT-33-02	7 / 7	1.7
	7440-47-3	Chromium VI	2.9 J	2.9 J	mg/Kg	SD-TT-33-02	1 / 7	N/A

(a) Data presented are from sediment samples SD-16-01-FW, SD-16-02-FW, SD-16-03-FW, SD-TT-33-01 through SD-TT-33-03, and SD-TT-33-02-TR; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.22
COPCs DETECTED IN SEDIMENT AT STATION 09
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 09 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 10	0.012 - 0.016
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 10	0.012 - 0.016
	56-55-3	Benzo(a)anthracene	0.04 J	1	mg/Kg	SD-09-06-FW	8 / 10	0.41 - 0.52
	50-32-8	Benzo(a)pyrene	0.045 J	1.1	mg/Kg	SD-09-06-FW	8 / 10	0.41 - 0.52
	205-99-2	Benzo(b)fluoranthene	0.076 J	2.3	mg/Kg	SD-09-06-FW	8 / 10	0.41 - 0.52
	207-08-9	Benzo(k)fluoranthene	0.069 J	2.1	mg/Kg	SD-09-06-FW	8 / 10	0.41 - 0.52
	53-70-3	Dibenz(a,h)anthracene	0.08 J	0.08 J	mg/Kg	SD-09-06-FW	1 / 10	0.39 - 0.52
	193-39-5	Indeno(1,2,3-cd)pyrene	0.021 J	0.37 J	mg/Kg	SD-09-06-FW	4 / 10	0.39 - 0.52
	85-01-8	Phenanthrene	0.062 J	1.9	mg/Kg	SD-09-06-FW	8 / 10	0.41 - 0.52
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 10	0.039 - 0.052
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 10	0.039 - 0.052
	7440-36-0	Antimony	0.64	1.3	mg/Kg	SD-09-08-FW	8 / 10	0.51 - 0.57
	7440-38-2	Arsenic	18.1 J	48.5 J	mg/Kg	SD-09-02-FW	10 / 10	N/A
	7440-39-3	Barium	6	73.9	mg/Kg	SD-09-10-FW	10 / 10	N/A
	7440-43-9	Cadmium	0.19	1.2 J	mg/Kg	SD-09-10-FW	2 / 10	0.5 - 1.5
	7440-47-3	Chromium	9.3 J	91.8 J	mg/Kg	SD-09-01-FW	10 / 10	N/A
	7440-50-8	Copper	4.2 J	102 J	mg/Kg	SD-09-01-FW	10 / 10	N/A
	7439-92-1	Lead	2.4	86.8	mg/Kg	SD-09-01-FW	10 / 10	N/A
	7439-96-5	Manganese	43.2 J	2640 J	mg/Kg	SD-09-10-FW	10 / 10	N/A
	7439-97-6	Mercury	0.19 J	0.68 J	mg/Kg	SD-09-07-FW	7 / 10	0.049 - 0.06
	7440-02-0	Nickel	5.7	12.5	mg/Kg	SD-09-09-FW	10 / 10	N/A
	7440-28-0	Thallium	0.68	2.4	mg/Kg	SD-09-10-FW	6 / 10	0.52 - 1
	7440-62-2	Vanadium	6.5	19.3	mg/Kg	SD-09-08-FW	10 / 10	N/A
	7440-66-6	Zinc	57.1 J	479 J	mg/Kg	SD-09-10-FW	10 / 10	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment samples SD-09-01-FW, SD-09-02-FW, SD-09-03-FW, SD-09-04-FW, SD-09-05-FW, SD-09-06-FW, SD-09-07-FW, SD-09-08-FW, SD-09-09-FW and SD-09-10-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.23
COPCs DETECTED IN SEDIMENT AT STATION AM
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station AM (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	2 J	2 J	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-38-2	Arsenic	121	121	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-39-3	Barium	58.4	58.4	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-43-9	Cadmium	3.9	3.9	mg/Kg	SD-AM-01	1 / 1	0.1693
	7440-47-3	Chromium	322	322	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-50-8	Copper	197	197	mg/Kg	SD-AM-01	1 / 1	0.4233
	7439-92-1	Lead	150	150	mg/Kg	SD-AM-01	1 / 1	0.254
	7439-96-5	Manganese	1140 J	1140 J	mg/Kg	SD-AM-01	1 / 1	0.4233
	7439-97-6	Mercury	1.9	1.9	mg/Kg	SD-AM-01	1 / 1	0.0899
	7440-02-0	Nickel	18 J	18 J	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-28-0	Thallium	0.44 J	0.44 J	mg/Kg	SD-AM-01	1 / 1	0.2568
	7440-62-2	Vanadium	26.9	26.9	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-66-6	Zinc	941	941	mg/Kg	SD-AM-01	1 / 1	0.4233
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 1	N/A

(a) Data presented are from sediment sample SD-AM-01; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.24
COPCs DETECTED IN SEDIMENT AT STATION KF
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station KF (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 10	1.7 - 1.8
	7440-38-2	Arsenic	11.7	90.4	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-39-3	Barium	15.9	54.7	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-43-9	Cadmium	0.81	1.1	mg/Kg	SD-KF-03	5 / 10	0.12 - 0.48
	7440-47-3	Chromium	20.8	113	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-50-8	Copper	21.9	185	mg/Kg	SD-KF-03	10 / 10	N/A
	7439-92-1	Lead	31.6	188	mg/Kg	SD-KF-05	10 / 10	N/A
	7439-96-5	Manganese	83.5	503	mg/Kg	SD-KF-03	10 / 10	N/A
	7439-97-6	Mercury	0.1 J	1.6 J	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-02-0	Nickel	5.8	12.6	mg/Kg	SD-KF-10	7 / 10	2.5 - 5.3
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 10	1.7 - 1.8
	7440-62-2	Vanadium	9.1	29.6	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-66-6	Zinc	115 J	461	mg/Kg	SD-KF-03	10 / 10	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment sample SD-KF-01 through SD-KF-04, SD-KF-05 (and duplicate), and SD-KF-06 through SD-KF-10; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.25
COPCs DETECTED IN SEDIMENT AT STATION 08
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 08 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.015
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.015
	56-55-3	Benzo(a)anthracene	0.29 J	0.68	mg/Kg	SD-08-02-FW	3 / 3	N/A
	50-32-8	Benzo(a)pyrene	0.45	0.94	mg/Kg	SD-08-02-FW	3 / 3	N/A
	205-99-2	Benzo(b)fluoranthene	0.95	1.9	mg/Kg	SD-08-02-FW	3 / 3	N/A
	207-08-9	Benzo(k)fluoranthene	0.96	2	mg/Kg	SD-08-02-FW	3 / 3	N/A
	53-70-3	Dibenz(a,h)anthracene	0.06 J	0.16 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	0.24 J	0.68	mg/Kg	SD-08-02-FW	3 / 3	N/A
	85-01-8	Phenanthrene	0.28 J	0.61	mg/Kg	SD-08-02-FW	3 / 3	N/A
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 2	0.041 - 0.049
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 2	0.041 - 0.049
	7440-36-0	Antimony	0.74	1.6	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-38-2	Arsenic	10.8 J	28.9 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-39-3	Barium	15.7	21.2	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-43-9	Cadmium	ND	ND	mg/Kg	ND	0 / 3	0.6 - 1.8
	7440-47-3	Chromium	17.8 J	119 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-50-8	Copper	28.3 J	133 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7439-92-1	Lead	20	70.7	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7439-96-5	Manganese	99.5 J	228 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7439-97-6	Mercury	0.11 J	1 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-02-0	Nickel	7	20.2	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-28-0	Thallium	1.1	1.7	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-62-2	Vanadium	11.6	17.5	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-66-6	Zinc	171 J	539 J	mg/Kg	SD-08-02-FW	3 / 3	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 3	N/A

(a) Data presented are from sediment samples SD-08-01-FW, SD-08-02-FW and SD-08-03-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.26
COPCs DETECTED IN SEDIMENT AT STATION 07/DP
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 07/DP (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 9	0.013 - 0.101
	79-01-6	Trichloroethene	0.024 J	0.035 J	mg/Kg	SD-07-10-ME	2 / 9	0.013 - 0.034
	56-55-3	Benzo(a)anthracene	0.415 J	9.6	mg/Kg	SD-07-10-ME	10 / 10	0.067
	50-32-8	Benzo(a)pyrene	0.49 J	10	mg/Kg	SD-07-10-ME	10 / 10	0.067
	205-99-2	Benzo(b)fluoranthene	0.555	16 J	mg/Kg	SD-07-10-ME	10 / 10	0.067
	207-08-9	Benzo(k)fluoranthene	0.48 J	14 J	mg/Kg	SD-07-05-FW	10 / 10	0.067
	53-70-3	Dibenz(a,h)anthracene	0.082 J	2	mg/Kg	SD-07-10-ME	8 / 10	0.067 - 0.89
	193-39-5	Indeno(1,2,3-cd)pyrene	0.22 J	6.9	mg/Kg	SD-07-10-ME	9 / 10	0.067 - 0.89
	85-01-8	Phenanthrene	0.4 J	12	mg/Kg	SD-07-10-ME	10 / 10	0.067
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 9	0.0032 - 0.21
	11096-82-5	Aroclor 1260	0.05	0.074	mg/Kg	SD-07-05-ME	2 / 9	0.0032 - 0.21
	7440-36-0	Antimony	0.72	3.1	mg/Kg	SD-07-10-FW	10 / 10	0.26 - 0.27
	7440-38-2	Arsenic	10.3 J	129 J	mg/Kg	SD-07-10-FW	10 / 10	0.22
	7440-39-3	Barium	21.35	118	mg/Kg	SD-07-05-ME	10 / 10	0.018 - 0.019
	7440-43-9	Cadmium	0.645	10.3	mg/Kg	SD-07-10-FW	5 / 10	0.037 - 5.7
	7440-47-3	Chromium	31.9 J	442 J	mg/Kg	SD-07-10-FW	10 / 10	0.055 - 0.056
	7440-50-8	Copper	23.4 J	380 J	mg/Kg	SD-07-10-FW	10 / 10	0.082 - 0.084
	7439-92-1	Lead	41.2	480	mg/Kg	SD-07-04-FW	10 / 10	0.26 - 0.27
	7439-96-5	Manganese	108.55	595 J	mg/Kg	SD-07-04-FW	10 / 10	0.018 - 0.019
	7439-97-6	Mercury	0.28 J	5.7 J	mg/Kg	SD-07-10-FW	9 / 10	0.005 - 0.11
	7440-02-0	Nickel	8.2	37.5	mg/Kg	SD-07-05-ME	10 / 10	0.15
	7440-28-0	Thallium	0.815	3.8	mg/Kg	SD-07-10-FW	8 / 10	0.043 - 0.76
	7440-62-2	Vanadium	17.2	79.2	mg/Kg	SD-07-10-FW	10 / 10	0.073 - 0.075
	7440-66-6	Zinc	106 J	2490 J	mg/Kg	SD-07-10-FW	10 / 10	0.16 - 0.17
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 10	N/A

(a) Data presented are from sediment samples SD-07-01-FW (and duplicate), SD-07-03-FW, SD-07-04-FW, SD-07-05-FW, SD-07-05-ME, SD-07-07-FW, SD-07-08-FW, SD-07-09-FW, SD-07-10-FW and SD-07-10-ME; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.27
COPCs DETECTED IN SEDIMENT AT STATION LP
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station LP (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	5.1 J	5.1 J	mg/Kg	SD-LP-04	1 / 12	1.7 - 2.6
	7440-38-2	Arsenic	5.4	485 J	mg/Kg	SD-LP-04	12 / 12	N/A
	7440-39-3	Barium	11.2	68.9	mg/Kg	SD-LP-11	12 / 12	N/A
	7440-43-9	Cadmium	0.14 J	5.6 J	mg/Kg	SD-LP-04	10 / 12	0.12
	7440-47-3	Chromium	8.2	134	mg/Kg	SD-LP-11	12 / 12	N/A
	7440-50-8	Copper	6.6	1560 J	mg/Kg	SD-LP-04	12 / 12	N/A
	7439-92-1	Lead	6.4	400 J	mg/Kg	SD-LP-04	12 / 12	N/A
	7439-96-5	Manganese	47.5	333	mg/Kg	SD-LP-03	12 / 12	N/A
	7439-97-6	Mercury	0.16 J	1.4	mg/Kg	SD-LP-04	10 / 12	0.09 - 0.1
	7440-02-0	Nickel	0.59 J	30.6	mg/Kg	SD-LP-04	12 / 12	N/A
	7440-28-0	Thallium	1.325 J	2.9 J	mg/Kg	SD-LP-04	6 / 12	1.7 - 2.2
	7440-62-2	Vanadium	6.5	39.8	mg/Kg	SD-LP-11	12 / 12	N/A
	7440-66-6	Zinc	15.2	2800	mg/Kg	SD-LP-03	12 / 12	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 12	N/A

(a) Data presented are from sediment samples SD-LP-01 through SD-LP-05, SD-LP-06 (and duplicate), SD-LP-08, SD-LP-11, SD-LP-12 (and duplicate), and SD-LP-13 through SD-LP-15; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.28
COPCs DETECTED IN SEDIMENT AT STATION LP
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station LP (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	5.1 J	5.1 J	mg/Kg	SD-LP-04	1 / 15	1.7 - 2.6
	7440-38-2	Arsenic	5.4	485 J	mg/Kg	SD-LP-04	15 / 15	N/A
	7440-39-3	Barium	11.2	68.9	mg/Kg	SD-LP-11	15 / 15	N/A
	7440-43-9	Cadmium	0.14 J	5.6 J	mg/Kg	SD-LP-04	13 / 15	0.12
	7440-47-3	Chromium	8.2	134	mg/Kg	SD-LP-11	15 / 15	N/A
	7440-50-8	Copper	6.6	1560 J	mg/Kg	SD-LP-04	15 / 15	N/A
	7439-92-1	Lead	6.4	400 J	mg/Kg	SD-LP-04	15 / 15	N/A
	7439-96-5	Manganese	47.5	333	mg/Kg	SD-LP-03	15 / 15	N/A
	7439-97-6	Mercury	0.16 J	1.4	mg/Kg	SD-LP-04	13 / 15	0.09 - 0.1
	7440-02-0	Nickel	0.59 J	30.6	mg/Kg	SD-LP-04	15 / 15	N/A
	7440-28-0	Thallium	1.325 J	2.9 J	mg/Kg	SD-LP-04	9 / 15	1.7 - 2.2
	7440-62-2	Vanadium	6.5	39.8	mg/Kg	SD-LP-11	15 / 15	N/A
	7440-66-6	Zinc	15.2	2800	mg/Kg	SD-LP-03	15 / 15	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 15	N/A

(a) Data presented are from sediment samples SD-LP-01 through SD-LP-05, SD-LP-06 (and duplicate), SD-LP-07 through SD-LP-11, SD-LP-12 (and duplicate), and SD-LP-13 through SD-LP-15; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.29
COPCs DETECTED IN SEDIMENT AT STATION AS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station AS (a)	127-18-4	Tetrachloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	79-01-6	Trichloroethene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	56-55-3	Benzo(a)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	50-32-8	Benzo(a)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	205-99-2	Benzo(b)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	207-08-9	Benzo(k)fluoranthene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	53-70-3	Dibenz(a,h)anthracene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	193-39-5	Indeno(1,2,3-cd)pyrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	85-01-8	Phenanthrene	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11097-69-1	Aroclor 1254	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	11096-82-5	Aroclor 1260	N/A	N/A	mg/Kg	N/A	0 / 0	N/A
	7440-36-0	Antimony	2.15 J	2.9 J	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-38-2	Arsenic	111	121	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-39-3	Barium	95.85	109	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-43-9	Cadmium	10.6	13.3	mg/Kg	SD-AS-02	2 / 2	0.1593 - 0.1784
	7440-47-3	Chromium	576.5	918	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-50-8	Copper	444.5	576	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7439-92-1	Lead	484	661	mg/Kg	SD-AS-02	2 / 2	0.239 - 0.2676
	7439-96-5	Manganese	378.5 J	384 J	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7439-97-6	Mercury	3.05	3.1	mg/Kg	SD-AS-02	2 / 2	0.1225 - 0.1251
	7440-02-0	Nickel	35 J	39.4 J	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-28-0	Thallium	0.95 J	1.2 J	mg/Kg	SD-AS-02	2 / 2	0.2278 - 0.2718
	7440-62-2	Vanadium	59	72.6	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-66-6	Zinc	2085	2290	mg/Kg	SD-AS-02	2 / 2	0.3983 - 0.446
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 2	N/A

(a) Data presented are from sediment samples SD-AS-01 (and duplicate) and SD-AS-02; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.30
COPCs DETECTED IN SEDIMENT AT STATION 05
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 05 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.02
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.02
	56-55-3	Benzo(a)anthracene	0.13 J	2.3 J	mg/Kg	SD-05-03-FW	3 / 3	N/A
	50-32-8	Benzo(a)pyrene	0.13 J	2.5 J	mg/Kg	SD-05-03-FW	3 / 3	N/A
	205-99-2	Benzo(b)fluoranthene	0.13 J	3 J	mg/Kg	SD-05-03-FW	2 / 3	0.39
	207-08-9	Benzo(k)fluoranthene	0.12 J	1.9 J	mg/Kg	SD-05-03-FW	2 / 3	0.39
	53-70-3	Dibenz(a,h)anthracene	ND	ND	mg/Kg	ND	0 / 3	0.39 - 0.65
	193-39-5	Indeno(1,2,3-cd)pyrene	0.064 J	1.2 J	mg/Kg	SD-05-03-FW	3 / 3	N/A
	85-01-8	Phenanthrene	0.11 J	2.2 J	mg/Kg	SD-05-03-FW	3 / 3	N/A
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 1	0.21
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 1	0.21
	7440-36-0	Antimony	0.44 J	1.8 J	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7440-38-2	Arsenic	5.1	24.8	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7440-39-3	Barium	21.3	43.2	mg/Kg	SD-05-02-FW	3 / 3	N/A
	7440-43-9	Cadmium	1.6	1.6	mg/Kg	SD-05-03-FW	1 / 3	0.03 - 0.043
	7440-47-3	Chromium	15	149	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7440-50-8	Copper	10.9	80.3	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7439-92-1	Lead	39.3	145	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7439-96-5	Manganese	125	952	mg/Kg	SD-05-02-FW	3 / 3	N/A
	7439-97-6	Mercury	1.2 J	1.2 J	mg/Kg	SD-05-03-FW	1 / 3	0.04 - 0.05
	7440-02-0	Nickel	6.8	10.7	mg/Kg	SD-05-01-FW	3 / 3	N/A
	7440-28-0	Thallium	0.85	0.97	mg/Kg	SD-05-02-FW	2 / 3	1.3
	7440-62-2	Vanadium	12.5	19.4	mg/Kg	SD-05-02-FW	3 / 3	N/A
	7440-66-6	Zinc	111	571	mg/Kg	SD-05-03-FW	3 / 3	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 3	N/A

(a) Data presented are from sediment samples SD-05-01-FW, SD-05-02-FW, and SD-05-03-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.31
COPCs DETECTED IN SEDIMENT AT STATION 03
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 03 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.132
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 3	0.012 - 0.044
	56-55-3	Benzo(a)anthracene	1.3	1.3	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	50-32-8	Benzo(a)pyrene	1	1	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	205-99-2	Benzo(b)fluoranthene	1.4	1.4	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	207-08-9	Benzo(k)fluoranthene	0.64	0.64	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	53-70-3	Dibenz(a,h)anthracene	0.11	0.11	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	193-39-5	Indeno(1,2,3-cd)pyrene	0.62	0.62	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	85-01-8	Phenanthrene	1	1	mg/Kg	SD-03-02-ME	1 / 3	0.067 - 0.4
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 3	0.0032 - 0.04
	11096-82-5	Aroclor 1260	0.11	0.11	mg/Kg	SD-03-02-ME	1 / 3	0.0032 - 0.04
	7440-36-0	Antimony	0.41 J	1.7 J	mg/Kg	SD-03-02-ME	2 / 3	0.27 - 0.55
	7440-38-2	Arsenic	5.4	86.5	mg/Kg	SD-03-02-ME	3 / 3	0.22
	7440-39-3	Barium	9	84.6	mg/Kg	SD-03-02-ME	3 / 3	0.018
	7440-43-9	Cadmium	5.2	5.2	mg/Kg	SD-03-02-ME	1 / 3	0.028 - 0.35
	7440-47-3	Chromium	9.6	200 J	mg/Kg	SD-03-02-ME	3 / 3	0.055
	7440-50-8	Copper	6.4	171	mg/Kg	SD-03-02-ME	3 / 3	0.083
	7439-92-1	Lead	10.1	345 J	mg/Kg	SD-03-02-ME	3 / 3	0.27
	7439-96-5	Manganese	69.1	503	mg/Kg	SD-03-02-ME	3 / 3	0.018
	7439-97-6	Mercury	0.06 J	0.71	mg/Kg	SD-03-02-ME	2 / 3	0.0051 - 0.04
	7440-02-0	Nickel	4.9	26.7 J	mg/Kg	SD-03-02-ME	3 / 3	0.15
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 3	0.039 - 0.8
	7440-62-2	Vanadium	7.9	49.2	mg/Kg	SD-03-02-ME	3 / 3	0.074
	7440-66-6	Zinc	60.4	1420 J	mg/Kg	SD-03-02-ME	3 / 3	0.17
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 3	N/A

(a) Data presented are from sediment samples SD-03-01-FW, SD-03-02-ME and SD-03-03-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.2.32
COPCs DETECTED IN SEDIMENT AT STATION 01
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 01 (a)	127-18-4	Tetrachloroethene	ND	ND	mg/Kg	ND	0 / 4	0.011 - 0.012
	79-01-6	Trichloroethene	ND	ND	mg/Kg	ND	0 / 4	0.011 - 0.012
	56-55-3	Benzo(a)anthracene	0.12 J	0.25 J	mg/Kg	SD-01-03-FW	2 / 4	0.39 - 0.4
	50-32-8	Benzo(a)pyrene	0.093 J	0.21 J	mg/Kg	SD-01-03-FW	2 / 4	0.39 - 0.4
	205-99-2	Benzo(b)fluoranthene	0.098 J	0.17 J	mg/Kg	SD-01-03-FW	2 / 4	0.39 - 0.4
	207-08-9	Benzo(k)fluoranthene	0.1 J	0.21 J	mg/Kg	SD-01-03-FW	2 / 4	0.39 - 0.4
	53-70-3	Dibenz(a,h)anthracene	ND	ND	mg/Kg	ND	0 / 4	0.37 - 0.4
	193-39-5	Indeno(1,2,3-cd)pyrene	0.12 J	0.12 J	mg/Kg	SD-01-03-FW	1 / 4	0.37 - 0.4
	85-01-8	Phenanthrene	0.29 J	0.5 J	mg/Kg	SD-01-03-FW	2 / 4	0.39 - 0.4
	11097-69-1	Aroclor 1254	ND	ND	mg/Kg	ND	0 / 4	0.038 - 0.19
	11096-82-5	Aroclor 1260	ND	ND	mg/Kg	ND	0 / 4	0.038 - 0.19
	7440-36-0	Antimony	0.55 J	0.94 J	mg/Kg	SD-01-03-FW	2 / 4	0.44 - 0.49
	7440-38-2	Arsenic	3.1	6.2	mg/Kg	SD-01-05-FW	4 / 4	N/A
	7440-39-3	Barium	9.5	12.6	mg/Kg	SD-01-05-FW	4 / 4	N/A
	7440-43-9	Cadmium	0.089	0.18	mg/Kg	SD-01-03-FW	2 / 4	0.041 - 0.046
	7440-47-3	Chromium	7	9.8	mg/Kg	SD-01-05-FW	4 / 4	N/A
	7440-50-8	Copper	6.7	16.6	mg/Kg	SD-01-08-FW	4 / 4	N/A
	7439-92-1	Lead	9 J	39.9 J	mg/Kg	SD-01-05-FW	4 / 4	N/A
	7439-96-5	Manganese	60.4	103	mg/Kg	SD-01-05-FW	4 / 4	N/A
	7439-97-6	Mercury	ND	ND	mg/Kg	ND	0 / 4	0.015 - 0.023
	7440-02-0	Nickel	4.9	7.2	mg/Kg	SD-01-03-FW	4 / 4	N/A
	7440-28-0	Thallium	0.54	0.54	mg/Kg	SD-01-03-FW	1 / 4	0.64 - 0.8
	7440-62-2	Vanadium	7.3	11.6	mg/Kg	SD-01-03-FW	4 / 4	N/A
	7440-66-6	Zinc	46.1	153	mg/Kg	SD-01-08-FW	4 / 4	N/A
	7440-47-3	Chromium VI	ND	ND	mg/Kg	ND	0 / 4	N/A

(a) Data presented are from sediment samples SD-01-01-FW, SD-01-03-FW, SD-01-05-FW and SD-01-08-FW; only COPCs selected on Table 3-2.2 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
Combined Data (a)	7429-90-5	Aluminum	2890	10900	mg/Kg	SO-DA-03	61 / 61	7.4	10900	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	0.67 J	1.6	mg/Kg	SO-CB-05-05	7 / 61	0.65 - 4.9	1.6	N/A	3.1 N	N/A	N/A	N	BSL
	7440-38-2	Arsenic	6.05 J	272 J	mg/Kg	SO-DA-03	61 / 61	5.6	272	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	11	152.5	mg/Kg	SO-DP-26	61 / 61	0.1	152.5	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	0.18 J	0.56	mg/Kg	SO-NR-20	28 / 44	0.05 - 0.24	0.56	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	0.22 J	4.6 J	mg/Kg	SO-DA-03	25 / 61	0.1 - 0.76	4.6	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	556	7240	mg/Kg	SO-DP-26	61 / 61	9.7	7240	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	9.3	550 J	mg/Kg	SO-DA-03	61 / 61	1.5	550	N/A	30 C	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	2.3	25.7	mg/Kg	SO-DA-03	61 / 61	1.7	25.7	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	18.3	320 J	mg/Kg	SO-DA-03	61 / 61	0.6	320	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	6600	134000 J	mg/Kg	SO-DP-16	61 / 61	29.5	134000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	25	274 J	mg/Kg	SO-DA-03	61 / 61	2.6	274	N/A	400 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	1070	5020	mg/Kg	SO-DP-03	61 / 61	14.6	5020	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	58.1	2850	mg/Kg	SO-DA-03	61 / 61	0.2	2850	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.07 J	3.4	mg/Kg	SO-DA-03	56 / 61	0.1 - 0.26	3.4	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	4.25 J	22.2	mg/Kg	SO-DA-03	60 / 61	1 - 4.9	22.2	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	190	1000	mg/Kg	SO-CB-05-02	61 / 61	41	1000	N/A	N/A	N/A	N/A	N	NUT
	7782-49-2	Selenium	0.65 J	6.1	mg/Kg	SO-DP-16	21 / 61	0.58 - 3.9	6.1	N/A	39 N	N/A	N/A	N	BSL
	7440-22-4	Silver	0.28 J	2.7	mg/Kg	SO-NR-20	39 / 60	0.19 - 1.8	2.7	N/A	39 N	N/A	N/A	N	BSL
	7440-23-5	Sodium	171 J	960 J	mg/Kg	SO-SS-05	33 / 60	6.4 - 268	960	N/A	N/A	N/A	N/A	N	NUT
	7440-28-0	Thallium	0.72 J	3.6 J	mg/Kg	SO-DP-16	17 / 61	0.6 - 7.8	3.6	N/A	0.52 N	N/A	N/A	Y	ASL
	7440-62-2	Vanadium	8.75	58.1	mg/Kg	SO-DP-12	61 / 61	1.4	58.1	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	33.5	44800	mg/Kg	SO-DP-16	61 / 61	0.1 - 3.3	44800	N/A	2300 N	N/A	N/A	Y	ASL

(a) Data presented are from soil samples SO-CB-05-01 through SO-CB-05-09, SO-CB-05-10 (and duplicate), SO-DA-01 (and duplicate), SO-DA-02 through SO-DA-05, SO-DP-01 through SO-DP-05, SO-DP-06 (and duplicate), SO-DP-07 through SO-DP-19, SO-DP-20 (and duplicate), SO-DP-21 through SO-DP-25, SO-DP-26 (and duplicate), SO-NR-16, SO-NR-17, SO-NR-18 (and duplicate), SO-NR-19, SO-NR-20, SO-KF-01 through SO-KF-04, SO-KF-05 (and duplicate), SO-KF-06 through SO-KF-10, SO-SS-01, SO-SS-02 (and duplicate), and SO-SS-03 through SO-SS-05.

(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for residential soil (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
PRG for chromium VI used for chromium.
PRG for methylmercury used for mercury.
The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions: COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

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TABLE 3-2.3.1
COPCs DETECTED IN SOIL AT STATION NR
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station NR (a)	7440-38-2	Arsenic	39.6	266	mg/Kg	SO-NR-20	5 / 5	N/A
	7440-43-9	Cadmium	1.2	3	mg/Kg	SO-NR-20	2 / 5	0.3 - 0.69
	7440-47-3	Chromium	40	228	mg/Kg	SO-NR-20	5 / 5	N/A
	7440-50-8	Copper	38.6	228	mg/Kg	SO-NR-20	5 / 5	N/A
	7439-96-5	Manganese	111	830	mg/Kg	SO-NR-20	5 / 5	N/A
	7439-97-6	Mercury	0.38	2	mg/Kg	SO-NR-20	5 / 5	N/A
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 5	1.7 - 2
	7440-62-2	Vanadium	8.75	31.8	mg/Kg	SO-NR-20	5 / 5	N/A
	7440-66-6	Zinc	105 J	708 J	mg/Kg	SO-NR-20	5 / 5	N/A

(a) Data presented are from soil samples SO-NR-16, SO-NR-17, SO-NR-18 (and duplicate), SO-NR-19, and SO-NR-20; only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3.2
COPCs DETECTED IN SOIL AT STATION WS/WSS
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station WS/WSS (a)	7440-38-2	Arsenic	8.1	10.9	mg/Kg	SO-SS-03	5 / 5	N/A
	7440-43-9	Cadmium	0.31 J	0.37 J	mg/Kg	SO-SS-05	2 / 5	0.19 - 0.2
	7440-47-3	Chromium	9.3	19.7	mg/Kg	SO-SS-05	5 / 5	N/A
	7440-50-8	Copper	18.3	33.8 J	mg/Kg	SO-SS-02	5 / 5	N/A
	7439-96-5	Manganese	90.6	204	mg/Kg	SO-SS-05	5 / 5	N/A
	7439-97-6	Mercury	0.09 J	0.13 J	mg/Kg	SO-SS-01	5 / 5	N/A
	7440-28-0	Thallium	1.5 J	1.5 J	mg/Kg	SO-SS-01	1 / 5	0.6 - 1.4
	7440-62-2	Vanadium	13.1	24.3	mg/Kg	SO-SS-03	5 / 5	N/A
	7440-66-6	Zinc	33.5	81.5 J	mg/Kg	SO-SS-05	5 / 5	N/A

(a) Data presented are from soil samples SO-SS-01, SO-SS-02 (and duplicate), and SO-SS-03 through SO-SS-05; only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3.3
COPCs DETECTED IN SOIL AT STATION CB-05
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station CB-05 (a)	7440-38-2	Arsenic	16.8	86.3	mg/Kg	SO-CB-05-05	10 / 10	N/A
	7440-43-9	Cadmium	0.22 J	1.1	mg/Kg	SO-CB-05-06	9 / 10	0.22
	7440-47-3	Chromium	13.4	211	mg/Kg	SO-CB-05-03	10 / 10	N/A
	7440-50-8	Copper	26.5	82.9	mg/Kg	SO-CB-05-05	10 / 10	N/A
	7439-96-5	Manganese	128 J	309	mg/Kg	SO-CB-05-05	10 / 10	N/A
	7439-97-6	Mercury	0.07 J	0.6	mg/Kg	SO-CB-05-05	10 / 10	N/A
	7440-28-0	Thallium	0.72 J	1.85 J	mg/Kg	SO-CB-05-10	4 / 10	0.65 - 0.8
	7440-62-2	Vanadium	17.2	34.9	mg/Kg	SO-CB-05-05	10 / 10	N/A
	7440-66-6	Zinc	60.7 J	259	mg/Kg	SO-CB-05-06	10 / 10	N/A

(a) Data presented are from soil samples SO-CB-05-01 through SO-CB-05-09, and SO-CB-05-10 (and duplicate); only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3.4
COPCs DETECTED IN SOIL AT STATION DA
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station DA (a)	7440-38-2	Arsenic	21.8 J	272 J	mg/Kg	SO-DA-03	5 / 5	N/A
	7440-43-9	Cadmium	0.3 J	4.6 J	mg/Kg	SO-DA-03	4 / 5	0.23
	7440-47-3	Chromium	32.6 J	550 J	mg/Kg	SO-DA-03	5 / 5	N/A
	7440-50-8	Copper	41.4 J	320 J	mg/Kg	SO-DA-03	5 / 5	N/A
	7439-96-5	Manganese	58.1	2850	mg/Kg	SO-DA-03	5 / 5	N/A
	7439-97-6	Mercury	0.31 J	3.4	mg/Kg	SO-DA-03	5 / 5	N/A
	7440-28-0	Thallium	1.6 J	3.4	mg/Kg	SO-DA-03	2 / 5	1.5 - 1.7
	7440-62-2	Vanadium	14.1	41.9	mg/Kg	SO-DA-03	5 / 5	N/A
	7440-66-6	Zinc	53.1	843	mg/Kg	SO-DA-03	5 / 5	N/A

(a) Data presented are from soil samples SO-DA-01 (and duplicate), and SO-DA-02 through SO-DA-05; only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3.5
COPCs DETECTED IN SOIL AT STATION KF
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station KF (a)	7440-38-2	Arsenic	19.9	54.55	mg/Kg	SO-KF-05	10 / 10	N/A
	7440-43-9	Cadmium	0.86	2.05 J	mg/Kg	SO-KF-05	7 / 10	0.44 - 0.76
	7440-47-3	Chromium	48.4	141	mg/Kg	SO-KF-02	10 / 10	N/A
	7440-50-8	Copper	50.6	143.5	mg/Kg	SO-KF-05	10 / 10	N/A
	7439-96-5	Manganese	245	1340	mg/Kg	SO-KF-05	10 / 10	N/A
	7439-97-6	Mercury	0.27 J	0.855 J	mg/Kg	SO-KF-05	10 / 10	N/A
	7440-28-0	Thallium	ND	ND	mg/Kg	ND	0 / 10	1.7 - 1.8
	7440-62-2	Vanadium	15.5	37.35	mg/Kg	SO-KF-05	10 / 10	N/A
	7440-66-6	Zinc	181 J	489	mg/Kg	SO-KF-05	10 / 10	N/A

(a) Data presented are from soil samples SO-KF-01 through SO-KF-04, SO-KF-05 (and duplicate), and SO-KF-06 through SO-KF-10; only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.3.6
COPCs DETECTED IN SOIL AT STATION 07/DP
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Station 07/DP (a)	7440-38-2	Arsenic	6.05 J	219	mg/Kg	SO-DP-26	26 / 26	5.6
	7440-43-9	Cadmium	0.6475 J	0.6475 J	mg/Kg	SO-DP-26	1 / 26	0.1 - 0.5
	7440-47-3	Chromium	24.4 J	316 J	mg/Kg	SO-DP-26	26 / 26	1.5
	7440-50-8	Copper	20.8	298.5	mg/Kg	SO-DP-26	26 / 26	0.60
	7439-96-5	Manganese	84.8 J	818	mg/Kg	SO-DP-25	26 / 26	0.20
	7439-97-6	Mercury	0.22 J	2.35	mg/Kg	SO-DP-26	21 / 26	0.1 - 0.26
	7440-28-0	Thallium	1.775 J	3.6 J	mg/Kg	SO-DP-16	10 / 26	1.6 - 7.8
	7440-62-2	Vanadium	15.6	58.1	mg/Kg	SO-DP-12	26 / 26	1.4
	7440-66-6	Zinc	55.8	44800	mg/Kg	SO-DP-16	26 / 26	0.1 - 3.3

(a) Data presented are from sediment samples SO-DP-01 through SO-DP-05, SO-DP-06 (and duplicate), SO-DP-07 through SO-DP-19, SO-DP-20 (and duplicate), SO-DP-21 through SO-DP-25, and SO-DP-26 (and duplicate); only COPCs selected on Table 3-2.3 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.4
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
Combined Data (a)	84-66-2	Diethylphthalate	0.41 J	0.41 J	mg/kg	LF-LK-14-F	1 / 23	0.550 - 1.600	0.41	N/A	110 N	N/A	N/A	N	BSL
	72-54-8	4,4'-DDD	0.0021 J	0.027	mg/kg	LF-LK-21-F	22 / 25	0.0026 - 0.0063	0.027	N/A	0.013 C	N/A	N/A	Y	ASL
	72-55-9	4,4'-DDE	0.0038 J	0.12	mg/kg	LF-RV-10-F	23 / 25	0.019 - 0.024	0.12	N/A	0.0093 C	N/A	N/A	Y	ASL
	50-29-3	4,4'-DDT	0.00064 J	0.019	mg/kg	LF-RV-10-F	16 / 24	0.00098 - 0.005	0.019	N/A	0.0093 C	N/A	N/A	Y	ASL
	309-00-2	Aldrin	0.00031 J	0.00053 J	mg/kg	LF-LK-22-F	6 / 24	0.00051 - 0.0051	0.00053	N/A	0.00019 C	N/A	N/A	Y	ASL
	5103-71-9	alpha-Chlordane	0.0013 J	0.011 J	mg/kg	LF-LK-24-F	20 / 25	0.0029 - 0.011	0.011	N/A	0.009 C	N/A	N/A	Y	ASL
	12672-29-6	Aroclor-1248	0.0079	0.0079	mg/kg	LF-LK-25-F	1 / 24	0.005 - 0.050	0.0079	N/A	0.0016 C	N/A	N/A	Y	ASL
	11097-69-1	Aroclor-1254	0.0096 J	0.18	mg/kg	LF-LK-21-F	23 / 25	0.0099 - 0.010	0.18	N/A	0.0016 C	N/A	N/A	Y	ASL
	11096-82-5	Aroclor-1260	0.014 J	0.32	mg/kg	LF-RV-10-F	25 / 25	N/A	0.32	N/A	0.0016 C	N/A	N/A	Y	ASL
	319-85-7	beta-BHC	0.00030 J	0.00030 J	mg/kg	LF-LK-10-F	1 / 24	0.00051 - 0.0051	0.00030	N/A	0.0018 C	N/A	N/A	N	BSL
	319-86-8	delta-BHC	0.00036 J	0.00058 J	mg/kg	LF-LK-09-F	3 / 24	0.00051 - 0.0051	0.00058	N/A	0.0005 C	N/A	N/A	Y	ASL
	60-57-1	Dieldrin	0.00070 J	0.0029 J	mg/kg	LF-RV-03-F	19 / 25	0.0011 - 0.0098	0.0029	N/A	0.0002 C	N/A	N/A	Y	ASL
	959-98-8	Endosulfan I	0.00038 J	0.00038 J	mg/kg	LF-LK-25-F	1 / 24	0.00051 - 0.0051	0.00038	N/A	0.81 N	N/A	N/A	N	BSL
	33213-65-9	Endosulfan II	0.0026 J	0.0026 J	mg/kg	LF-RV-01-F	1 / 24	0.00098 - 0.0098	0.0026	N/A	0.81 N	N/A	N/A	N	BSL
	1031-07-8	Endosulfan sulfate	0.00080 J	0.0018 J	mg/kg	LF-RV-10-F	3 / 24	0.00098 - 0.0098	0.0018	N/A	0.81 N	N/A	N/A	N	BSL
	72-20-8	Endrin	0.00072 J	0.0098 J	mg/kg	LF-LK-24-F	16 / 24	0.00098 - 0.013	0.010	N/A	0.041 N	N/A	N/A	N	BSL
	7421-36-3	Endrin aldehyde	0.00063 J	0.0089	mg/kg	LF-RV-10-F	11 / 24	0.00098 - 0.0098	0.0089	N/A	0.041 N	N/A	N/A	N	BSL
	53494-70-5	Endrin ketone	0.00061 J	0.00061 J	mg/kg	LF-LK-25-F	1 / 24	0.00098 - 0.0098	0.00061	N/A	0.041 N	N/A	N/A	N	BSL
	5103-74-2	gamma-Chlordane	0.00056 J	0.0051	mg/kg	LF-LK-06-F	25 / 25	N/A	0.0051	N/A	0.009 C	N/A	N/A	N	BSL
	76-44-8	Heptachlor	0.00041 J	0.00041 J	mg/kg	LF-LK-22-F	1 / 24	0.00051 - 0.0051	0.00041	N/A	0.0007 C	N/A	N/A	N	BSL
	1024-57-3	Heptachlor epoxide	0.00030 J	0.0017 J	mg/kg	LF-RV-03-F	6 / 25	0.00051 - 0.0052	0.0017	N/A	0.00035 C	N/A	N/A	Y	ASL

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TABLE 3-2.4
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
	7429-90-5	Aluminum	0.87 J	4.2 J	mg/kg	LF-LK-07-F	11 / 25	0.49 - 2.6	4.2	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	0.092	0.16	mg/kg	LF-LK-07-F	4 / 25	0.077 - 0.11	0.16	N/A	0.054 N	N/A	N/A	Y	ASL
	7440-38-2	Arsenic	0.17	0.17	mg/kg	LF-LK-25-F	1 / 25	0.071 - 0.42	0.17	N/A	0.0021 C	N/A	N/A	Y	ASL
	7440-43-9	Cadmium	0.012	0.023	mg/kg	LF-LK-25-F	11 / 25	0.0085 - 0.015	0.023	N/A	0.14 N	N/A	N/A	N	BSL
	7440-47-3	Chromium	0.053 J	0.16 J	mg/kg	LF-LK-07-F	17 / 25	0.062 - 0.1	0.16	N/A	0.41 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	0.041 J	0.054 J	mg/kg	LF-LK-25-F	4 / 25	0.032 - 0.05	0.054	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	0.12 J	0.8	mg/kg	LF-LK-25-F	24 / 25	0.24	0.80	N/A	5.4 N	N/A	N/A	N	BSL
	7439-89-6	Iron	4 J	43.7 J	mg/kg	LF-LK-25-F	5 / 25	2.8 - 8.5	43.7	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	0.062 J	2.3 J	mg/kg	LF-LK-25-F	4 / 25	0.051 - 0.13	2.3	N/A	N/A	N/A	N/A	Y	ABK
	7439-97-6	Mercury	0.018	0.58 J	mg/kg	LF-RV-01-F	21 / 25	0.058 - 0.096	0.58	N/A	0.014 N	N/A	N/A	Y	ASL
	7440-09-7	Potassium	3005 J	4370	mg/kg	LF-RV-02-F	25 / 25	N/A	4370	N/A	N/A	N/A	N/A	N	NUT
	7782-49-2	Selenium	0.27 J	0.84 J	mg/kg	LF-LK-14-F	25 / 25	N/A	0.84	N/A	0.68 N	N/A	N/A	Y	ASL
	7440-22-4	Silver	0.037 J	0.037 J	mg/kg	LF-RV-06-F	1 / 25	0.027 - 0.064	0.037	N/A	0.68 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	4.8	7.9 J	mg/kg	LF-RV-14-F	23 / 25	6.9 - 7.6	7.9	N/A	41 N	N/A	N/A	N	BSL

(a) Data presented are from fish fillet tissue samples LF-LK-06-F, LF-LK-07-F, LF-LK-08-F, LF-LK-09-F, LF-LK-10-F, LF-LK-11-F, LF-LK-12-F, LF-LK-13-F, LF-LK-14-F, LF-LK-20-F, LF-LK-21-F, LF-LK-22-F, LF-LK-23-F, LF-LK-24-F, LF-LK-25-F, LF-RV-01-F, LF-RV-02-F, LF-RV-03-F, LF-RV-04-F, LF-RV-05-F, LF-RV-06-F, LF-RV-10-F, LF-RV-13-F, LF-RV-14-F, and LF-RV-15-F.

(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region III RBCs for fish (adjusted to an hazard quotient = 0.1 for noncarcinogens), April 14, 2004.
The most conservative RBC for all BHCs has been used for delta-BHC.
RBC for endosulfan has been used for endosulfan I, endosulfan II, and endosulfan sulfate.
RBC for chlordane has been used for alpha- and gamma-chlordane.
RBC for endrin has been used for endrin aldehyde and endrin ketone.
RBC for PCBs has been used for all Aroclors.
RBC for chromium VI has been used for chromium.
RBC for methylmercury has been used for mercury.
(5) Rationale Codes:
Selection Reason: Above Screening Levels (ASL)
Above Background (ABK)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
RBC = Risk-Based Concentration
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

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TABLE 3-2.4.1
COPCs DETECTED IN FISH TISSUE AT REACH 3
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 3 (a)	72-54-8	4,4'-DDD	0.0021 J	0.0098	mg/Kg	LF-LK-06-F	8 / 9	0.0026
	72-55-9	4,4'-DDE	0.0038 J	0.026	mg/Kg	LF-RV-01-F	9 / 9	N/A
	50-29-3	4,4'-DDT	0.00084 J	0.0046 J	mg/Kg	LF-LK-10-F	4 / 8	0.00098 - 0.005
	309-00-2	Aldrin	0.00031 J	0.00032 J	mg/Kg	LF-LK-09-F	2 / 8	0.00051 - 0.0026
	5103-71-9	alpha-Chlordane	0.0013 J	0.0089 J	mg/Kg	LF-LK-06-F	9 / 9	N/A
	12672-29-6	Aroclor-1248	ND	ND	mg/Kg	ND	0 / 8	0.005 - 0.025
	11097-69-1	Aroclor-1254	0.0096 J	0.036 J	mg/Kg	LF-RV-03-F	7 / 9	0.0099 - 0.010
	11096-82-5	Aroclor-1260	0.014 J	0.11	mg/Kg	LF-RV-01-F	9 / 9	N/A
	319-86-8	delta-BHC	0.00036 J	0.00058 J	mg/Kg	LF-LK-09-F	3 / 8	0.00051 - 0.0026
	60-57-1	Dieldrin	0.00077 J	0.0029 J	mg/Kg	LF-RV-03-F	9 / 9	N/A
	1024-57-3	Heptachlor epoxide	0.00030 J	0.0017 J	mg/Kg	LF-RV-03-F	5 / 9	0.00051 - 0.001
	7440-36-0	Antimony	0.092	0.16	mg/Kg	LF-LK-07-F	3 / 9	0.082 - 0.1
	7440-38-2	Arsenic	ND	ND	mg/Kg	ND	0 / 9	0.071 - 0.42
	7439-92-1	Lead	0.062 J	0.062 J	mg/Kg	LF-RV-03-F	1 / 9	0.051 - 0.13
	7439-97-6	Mercury	0.023 J	0.58 J	mg/Kg	LF-RV-01-F	5 / 9	0.058 - 0.096
	7782-49-2	Selenium	0.27 J	0.78 J	mg/Kg	LF-RV-03-F	9 / 9	N/A

(a) Data presented are from fish fillet tissue samples LF-LK-06-F, LF-LK-07-F, LF-LK-08-F, LF-LK-09-F, LF-LK-10-F, LF-RV-01-F, LF-RV-02-F, LF-RV-03-F & LF-RV-04-F; only COPCs selected on Table 3-2.4 appear.

(1) Minimum/maximum detected concentration.

Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 3-2.4.2
COPCs DETECTED IN FISH TISSUE AT REACHES 4 & 5
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reaches 4 & 5 (a)	72-54-8	4,4'-DDD	0.0021 J	0.021	mg/Kg	LF-RV-10-F	8 / 10	0.0053 - 0.0063
	72-55-9	4,4'-DDE	0.0057	0.120	mg/Kg	LF-RV-10-F	8 / 10	0.019 - 0.024
	50-29-3	4,4'-DDT	0.00064 J	0.019	mg/Kg	LF-RV-10-F	8 / 10	0.002
	309-00-2	Aldrin	0.00037 J	0.00053 J	mg/Kg	LF-RV-10-F	3 / 10	0.00051 - 0.0051
	5103-71-9	alpha-Chlordane	0.0015 J	0.0030	mg/Kg	LF-LK-14-F	6 / 10	0.0029 - 0.0084
	12672-29-6	Aroclor-1248	ND	ND	mg/Kg	ND	0 / 10	0.005 - 0.050
	11097-69-1	Aroclor-1254	0.017	0.14	mg/Kg	LF-RV-15-F	10 / 10	N/A
	11096-82-5	Aroclor-1260	0.015	0.32	mg/Kg	LF-RV-10-F	10 / 10	N/A
	319-86-8	delta-BHC	ND	ND	mg/Kg	ND	0 / 10	0.00051 - 0.0051
	60-57-1	Dieldrin	0.00070 J	0.0015 J	mg/Kg	LF-RV-13-F	8 / 10	0.002 - 0.0098
	1024-57-3	Heptachlor epoxide	ND	ND	mg/Kg	ND	0 / 10	0.00051 - 0.0051
	7440-36-0	Antimony	0.14	0.14	mg/Kg	LF-RV-06-F	1 / 10	0.089 - 0.11
	7440-38-2	Arsenic	ND	ND	mg/Kg	ND	0 / 10	0.085 - 0.13
	7439-92-1	Lead	0.072 J	0.072 J	mg/Kg	LF-LK-11-F	1 / 10	0.061 - 0.097
	7439-97-6	Mercury	0.10 J	0.57 J	mg/Kg	LF-RV-10-F	10 / 10	N/A
	7782-49-2	Selenium	0.39 J	0.84 J	mg/Kg	LF-LK-14-F	10 / 10	N/A

(a) Data presented are from fish fillet tissue samples LF-LK-11-F, LF-LK-12-F, LF-LK-13-F, LF-LK-14-F, LF-RV-05-F, LF-RV-06-F, LF-RV-10-F, LF-RV-13-F, LF-RV-14-F, and LF-RV-15-F; only COPCs selected on Table 3-2.4 appear.
(1) Minimum/maximum detected concentration.
Definitions: COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

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TABLE 3-2.4.3
COPCs DETECTED IN FISH TISSUE AT REACH 6
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits
Reach 6 (a)	72-54-8	4,4'-DDD	0.0040	0.027	mg/Kg	LF-LK-21-F	6 / 6	N/A
	72-55-9	4,4'-DDE	0.0061	0.083	mg/Kg	LF-LK-21-F	6 / 6	N/A
	50-29-3	4,4'-DDT	0.0011 J	0.0067 J	mg/Kg	LF-LK-21-F	4 / 6	0.0011 - 0.0049
	309-00-2	Aldrin	0.00053 J	0.00053 J	mg/Kg	LF-LK-22-F	1 / 6	0.00055 - 0.0051
	5103-71-9	alpha-Chlordane	0.0035 J	0.011 J	mg/Kg	LF-LK-24-F	5 / 6	0.011
	12672-29-6	Aroclor-1248	0.0079	0.0079	mg/Kg	LF-LK-25-F	1 / 6	0.005 - 0.050
	11097-69-1	Aroclor-1254	0.015	0.18	mg/Kg	LF-LK-21-F	6 / 6	N/A
	11096-82-5	Aroclor-1260	0.025	0.11	mg/Kg	LF-LK-21-F	6 / 6	N/A
	319-86-8	delta-BHC	ND	ND	mg/Kg	ND	0 / 6	0.00051 - 0.0051
	60-57-1	Dieldrin	0.0016 J	0.0023 J	mg/Kg	LF-LK-24-F	2 / 6	0.0011 - 0.0098
	1024-57-3	Heptachlor epoxide	0.00053 J	0.00053 J	mg/Kg	LF-LK-25-F	1 / 6	0.00051 - 0.0051
	7440-36-0	Antimony	ND	ND	mg/Kg	ND	0 / 6	0.077 - 0.1
	7440-38-2	Arsenic	0.17	0.17	mg/Kg	LF-LK-25-F	1 / 6	0.074 - 0.097
	7439-92-1	Lead	0.076 J	2.3 J	mg/Kg	LF-LK-25-F	2 / 6	0.053 - 0.068
	7439-97-6	Mercury	0.018	0.20 J	mg/Kg	LF-LK-21-F	6 / 6	N/A
	7782-49-2	Selenium	0.45 J	0.65 J	mg/Kg	LF-LK-24-F	6 / 6	N/A

(a) Data presented are from fish fillet tissue samples LF-LK-20-F, LF-LK-21-F, LF-LK-22-F, LF-LK-23-F, LF-LK-24-F, and LF-LK-25-F; only COPCs selected on Table 3-2.4 appear.
(1) Minimum/maximum detected concentration.

Definitions:
COPC = Chemical of Potential Concern
N/A = Not Applicable or Not Available
ND = Not Detected
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 3-2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
AJRW (a)	7429-90-5	Aluminum	4700	12500	mg/Kg	SD-AJRW09	9 / 9	N/A	12500	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	20	29	mg/Kg	SD-AJRW17	3 / 9	19 - 20	29	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	33	74.5	mg/Kg	SD-AJRW09	9 / 9	N/A	74.5	N/A	540 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	1800	3400	mg/Kg	SD-AJRW09	9 / 9	N/A	3400	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	16	235	mg/Kg	SD-AJRW09	9 / 9	N/A	235	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	4.4	9	mg/Kg	SD-AJRW17	9 / 9	N/A	9	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	42	190	mg/Kg	SD-AJRW09	9 / 9	N/A	190	N/A	310 N	N/A	N/A	N	BSL
	7439-89-6	Iron	10000	17000	mg/Kg	SD-AJRW17	9 / 9	N/A	17000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	78	470	mg/Kg	SD-AJRW09	9 / 9	N/A	470	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	1900	4800	mg/Kg	SD-AJRW07	9 / 9	N/A	4800	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	91	330	mg/Kg	SD-AJRW17	9 / 9	N/A	330	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.15	1.045	mg/Kg	SD-AJRW09	9 / 9	N/A	1.045	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	9.7	17	mg/Kg	SD-AJRW09	9 / 9	N/A	17	N/A	160 N	N/A	N/A	N	BSL
	7440-62-2	Vanadium	19	47.5	mg/Kg	SD-AJRW09	9 / 9	N/A	47.5	N/A	55 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	120	395	mg/Kg	SD-AJRW09	9 / 9	N/A	395	N/A	2300 N	N/A	N/A	N	BSL

(a) Data presented are from soil samples SD-AJRW07, SD-AJRW09 (and duplicate), SD-AJRW11, SD-AJRW13, SD-AJRW15, SD-AJRW17, SD-AJRW19, SD-AJRW21, and SD-AJRW23.

(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for residential soil (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
PRG for chromium III used for chromium.
PRG for methylmercury used for mercury.
The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

US EPA ARCHIVE DOCUMENT

TABLE 3-2.6
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
AJRW (a)	7429-90-5	Aluminum	6400	17000	mg/Kg	SO-AJRW12	9 / 9	N/A	17000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	24	98	mg/Kg	SO-AJRW22	7 / 9	19 - 20	98	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	20	220	mg/Kg	SO-AJRW16	9 / 9	N/A	220	N/A	540 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	680	4800	mg/Kg	SO-AJRW10	9 / 9	N/A	4800	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	19	90	mg/Kg	SO-AJRW18	9 / 9	N/A	90	N/A	30 C	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	3.5	21	mg/Kg	SO-AJRW12	9 / 9	N/A	21	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	26	200	mg/Kg	SO-AJRW24	9 / 9	N/A	200	N/A	310 N	N/A	N/A	N	BSL
	7439-89-6	Iron	11000	34000	mg/Kg	SO-AJRW12	9 / 9	N/A	34000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	88	930	mg/Kg	SO-AJRW16	9 / 9	N/A	930	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	1600	11000	mg/Kg	SO-AJRW12	9 / 9	N/A	11000	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	63	600	mg/Kg	SO-AJRW12	9 / 9	N/A	600	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.22	1.2	mg/Kg	SO-AJRW10	9 / 9	N/A	1.2	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	7	33	mg/Kg	SO-AJRW12	9 / 9	N/A	33	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1300	1300	mg/Kg	SO-AJRW12	1 / 9	960 - 1000	1300	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	29	70	mg/Kg	SO-AJRW12	9 / 9	N/A	70	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	25	250	mg/Kg	SO-AJRW24	9 / 9	N/A	250	N/A	2300 N	N/A	N/A	N	BSL

(a) Data presented are from soil samples SO-AJRW08, SO-AJRW10 (and duplicate), SO-AJRW12, SO-AJRW14, SO-AJRW16, SO-AJRW18, SO-AJRW20, SO-AJRW22, and SO-AJRW24.
(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for residential soil (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
PRG for chromium VI used for chromium.
PRG for methylmercury used for mercury.
The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions: COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

US EPA ARCHIVE DOCUMENT

TABLE 3-2.7
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-05 Baseflow (a)	7429-90-5	Aluminum	62.2 J	99.7	ug/L	IPSW-05-071401	3 / 11	54.4 - 199	99.7	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	13	28	ug/L	IPSW-05-071602	11 / 11	N/A	28	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	29.9	46.7	ug/L	IPSW-05-071602	11 / 11	N/A	46.7	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	39600	55200	ug/L	IPSW-05-091002	11 / 11	N/A	55200	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	4.9	14.2	ug/L	IPSW-05-071602	10 / 11	5.7	14.2	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	1.2 J	2.2	ug/L	IPSW-05-102502	5 / 11	0.7 - 3	2.2	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	2.8 J	8.7 J	ug/L	IPSW-05-062002	7 / 11	4.5 - 9	8.7	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	1950	3460	ug/L	IPSW-05-062002	11 / 11	N/A	3460	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	1.4 J	6.2	ug/L	IPSW-05-071602	7 / 11	2.3 - 2.9	6.2	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	6550	9180	ug/L	IPSW-05-091801	11 / 11	N/A	9180	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	462	764	ug/L	IPSW-05-071602	11 / 11	N/A	764	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.1 J	0.1 J	ug/L	IPSW-05-071401	1 / 11	0.04 - 0.15	0.1	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	1.2 J	2.7 J	ug/L	SW-MC-13-0	8 / 11	1.4 - 2.6	2.7	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	4860 J	7080 J	ug/L	IPSW-05-091801	10 / 10	N/A	7080	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	55800	82400	ug/L	IPSW-05-071602	10 / 10	N/A	82400	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.7 J	5.4 J	ug/L	SW-MC-13-0	4 / 11	0.6 - 1.5	5.4	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	23.6 J	74	ug/L	IPSW-05-102201	11 / 11	N/A	74	N/A	1100 N	9100	AWQC	N	BSL
SW-05 Storm Event (a)	7440-36-0	Antimony	3.9	3.9	ug/L	IPSW-05-092502	1 / 6	1.7 - 3.9	3.9	N/A	1.5 N	14	AWQC	Y	ASL
	7440-38-2	Arsenic	11.5	23.3	ug/L	IPSW-05-051502	6 / 6	N/A	23.3	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	23.2	40.7	ug/L	IPSW-05-092502	6 / 6	N/A	40.7	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	19700	34600	ug/L	IPSW-05-092502	6 / 6	N/A	34600	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	4.2	12.1	ug/L	IPSW-05-042602	5 / 6	2.6	12.1	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	2.2	2.2	ug/L	IPSW-05-101802	1 / 6	0.75 - 2.4	2.2	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	8.4	12.8 J	ug/L	IPSW-05-042602	3 / 6	6.3 - 10.5	12.8	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	1150	2210	ug/L	IPSW-05-051502	6 / 6	N/A	2210	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	4.4	6 J	ug/L	IPSW-05-072502	3 / 6	2.5 - 6.4	6	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	3020	5230	ug/L	IPSW-05-092502	6 / 6	N/A	5230	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	124	529	ug/L	IPSW-05-101802	6 / 6	N/A	529	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.13 J	0.13 J	ug/L	IPSW-05-051502	1 / 6	0.1	0.13	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	1.5	3	ug/L	IPSW-05-101802	3 / 6	0.9 - 3.3	3	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	2930	5060 J	ug/L	IPSW-05-092502	6 / 6	N/A	5060	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	24400	44800	ug/L	IPSW-05-042602	6 / 6	N/A	44800	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	1.1	2.6	ug/L	IPSW-05-072502	2 / 6	0.67 - 2.3	2.6	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	53.9 J	108	ug/L	IPSW-05-083102	6 / 6	N/A	108	N/A	1100 N	9100	AWQC	N	BSL

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TABLE 3-2.7
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-06 Baseflow (a)	7429-90-5	Aluminum	65.8 J	363	ug/L	IPSW-06-102201	2 / 10	43.6 - 116	363	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	6.6	18.9	ug/L	IPSW-06-102201	10 / 10	N/A	18.9	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	31.7	42.8	ug/L	IPSW-06-071602	10 / 10	N/A	42.8	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	39200	52000	ug/L	IPSW-06-071602	10 / 10	N/A	52000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	1.9	13.4	ug/L	IPSW-06-102201	8 / 10	2.7 - 4.7	13.4	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	1 J	1.7 J	ug/L	IPSW-06-102201	4 / 10	0.7 - 1.2	1.7	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	1.9 J	14.7	ug/L	IPSW-06-102201	5 / 10	4.6 - 5.2	14.7	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	1010	2600	ug/L	IPSW-06-102201	10 / 10	N/A	2600	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	3	14.7	ug/L	IPSW-06-102201	3 / 10	1.4 - 2.6	14.7	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	6650	8990	ug/L	IPSW-06-071602	10 / 10	N/A	8990	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	367	757	ug/L	IPSW-06-071602	10 / 10	N/A	757	N/A	88 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	0.8 J	1.8 J	ug/L	IPSW-06-091801	8 / 10	1.5 - 1.6	1.8	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	4660 J	6330 J	ug/L	IPSW-06-102201	10 / 10	N/A	6330	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	57600	93100	ug/L	IPSW-06-050802	10 / 10	N/A	93100	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.67 J	1.6 J	ug/L	IPSW-06-102201	4 / 10	0.6 - 0.87	1.6	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	26.3 J	102	ug/L	IPSW-06-102201	10 / 10	N/A	102	N/A	1100 N	9100	AWQC	N	BSL
SW-06 Storm Event (a)	7429-90-5	Aluminum	281	513	ug/L	IPSW-06-042602	4 / 6	224 - 230	513	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	3.9	3.9	ug/L	IPSW-06-092502	1 / 6	1.5 - 2.6	3.9	N/A	1.5 N	14	AWQC	Y	ASL
	7440-38-2	Arsenic	15.2	25.5	ug/L	IPSW-06-092502	6 / 6	N/A	25.5	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	24.4	47.9	ug/L	IPSW-06-092502	6 / 6	N/A	47.9	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	19400	35000	ug/L	IPSW-06-092502	6 / 6	N/A	35000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	8	24.2	ug/L	IPSW-06-101802	5 / 6	11.2	24.2	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	1.3 J	2.1	ug/L	IPSW-06-101802	2 / 6	0.57 - 3.3	2.1	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	10.9	112 J	ug/L	IPSW-06-042602	5 / 6	11.9	112	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	1540	3405	ug/L	IPSW-06-101802	6 / 6	N/A	3405	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	11.9	16.25	ug/L	IPSW-06-101802	3 / 6	7.1 - 7.9	16.25	N/A	15 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	2870	5590	ug/L	IPSW-06-092502	6 / 6	N/A	5590	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	177	490	ug/L	IPSW-06-101802	6 / 6	N/A	490	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.12 J	0.16 J	ug/L	IPSW-06-101802	2 / 6	0.1	0.16	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	1.4 J	3.3	ug/L	IPSW-06-101802	3 / 6	1.7 - 4.4	3.3	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3010	5290 J	ug/L	IPSW-06-092502	6 / 6	N/A	5290	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	27300	64300	ug/L	IPSW-06-042602	6 / 6	N/A	64300	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	2.1	2.1	ug/L	IPSW-06-101802	2 / 6	1.1 - 3.5	2.1	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	63.4	118	ug/L	IPSW-06-101802	6 / 6	N/A	118	N/A	1100 N	9100	AWQC	N	BSL

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TABLE 3-2.7
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-07	7429-90-5	Aluminum	87.9	111	ug/L	IPSW-07-050802	2 / 10	43.6 - 216	111	N/A	N/A	N/A	N/A	N	NTX
Baseflow (a)	7440-38-2	Arsenic	4.8 J	8.3	ug/L	IPSW-07-080602	6 / 10	7.9 - 10.9	8.3	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	31.5	42.7	ug/L	IPSW-07-071602	10 / 10	N/A	42.7	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	34500	48400	ug/L	IPSW-07-071602	10 / 10	N/A	48400	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	2.6	5.7	ug/L	IPSW-07-091002	8 / 10	3 - 3.5	5.7	N/A	11 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	0.86 J	0.86 J	ug/L	IPSW-07-062002	1 / 10	0.7 - 1	0.86	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	4.3 J	7.6 J	ug/L	IPSW-07-062002	6 / 10	4.8 - 7.6	7.6	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	951	1800	ug/L	IPSW-07-062002	10 / 10	N/A	1800	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	2.8 J	5.6	ug/L	IPSW-07-062002	5 / 10	2.9 - 5.8	5.6	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	5790	8100	ug/L	IPSW-07-071602	10 / 10	N/A	8100	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	234	591	ug/L	IPSW-07-071602	10 / 10	N/A	591	N/A	88 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	1.1 J	2.4 J	ug/L	IPSW-07-102201	7 / 10	1.4 - 1.9	2.4	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	4180 J	6850 J	ug/L	IPSW-07-102201	10 / 10	N/A	6850	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	56000	96600	ug/L	IPSW-07-050802	10 / 10	N/A	96600	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.71 J	1.2	ug/L	IPSW-07-050802	3 / 10	0.6 - 1.5	1.2	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	26	60.2	ug/L	IPSW-07-102201	10 / 10	N/A	60.2	N/A	1100 N	9100	AWQC	N	BSL
SW-07	7429-90-5	Aluminum	386	651	ug/L	IPSW-07-042602	2 / 6	115 - 288	651	N/A	N/A	N/A	N/A	N	NTX
Storm Event (a)	7440-36-0	Antimony	1.25 J	1.25 J	ug/L	IPSW-07-092502	1 / 6	1.6 - 3	1.25	N/A	1.5 N	14	AWQC	N	BSL
	7440-38-2	Arsenic	4.8 J	18.1	ug/L	IPSW-07-051502	6 / 6	N/A	18.1	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	25.2	31.4	ug/L	IPSW-07-101802	6 / 6	N/A	31.4	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	19300	25650	ug/L	IPSW-07-072502	6 / 6	N/A	25650	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	2.95 J	13.2	ug/L	IPSW-07-042602	4 / 6	3.3 - 4	13.2	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	1.5	1.5	ug/L	IPSW-07-101802	1 / 6	0.4 - 1.8	1.5	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	6.5	51.7 J	ug/L	IPSW-07-042602	5 / 6	8.4	51.7	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	777	2520	ug/L	IPSW-07-042602	6 / 6	N/A	2520	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	3.5	17	ug/L	IPSW-07-042602	4 / 6	3.7 - 5.7	17	N/A	15 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	3050	4250	ug/L	IPSW-07-101802	6 / 6	N/A	4250	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	114.5	308	ug/L	IPSW-07-042602	6 / 6	N/A	308	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.11 J	0.11 J	ug/L	IPSW-07-101802	1 / 6	0.1	0.11	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	1.25 J	2.4	ug/L	IPSW-07-101802	3 / 6	0.92 - 2.7	2.4	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	2980	3910 J	ug/L	IPSW-07-092502	6 / 6	N/A	3910	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	29200	46700	ug/L	IPSW-07-042602	6 / 6	N/A	46700	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.56 J	2.9	ug/L	IPSW-07-042602	3 / 6	0.64 - 2.3	2.9	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	36.15 J	111	ug/L	IPSW-07-042602	6 / 6	N/A	111	N/A	1100 N	9100	AWQC	N	BSL

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TABLE 3-2.7
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-08	7429-90-5	Aluminum	121	121	ug/L	IPSW-08-071401	1 / 10	43.6 - 129	121	N/A	N/A	N/A	N/A	N	NTX
Baseflow (a)	7440-38-2	Arsenic	2.55 J	6.35	ug/L	IPSW-08-080602	5 / 10	3 - 8.3	6.35	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	41.3	62.9	ug/L	IPSW-08-091002	10 / 10	N/A	62.9	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	31300	46100	ug/L	IPSW-08-071602	10 / 10	N/A	46100	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	1.4 J	2.75	ug/L	IPSW-08-062002	8 / 10	2.3 - 3.2	2.75	N/A	11 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	0.545 J	0.545 J	ug/L	IPSW-08-062002	1 / 10	0.4 - 1	0.545	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	2.25 J	21.1 J	ug/L	IPSW-08-062002	5 / 10	2.3 - 7.4	21.1	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	595.5	1350	ug/L	IPSW-08-071401	10 / 10	N/A	1350	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	1.8 J	4.9	ug/L	IPSW-08-071401	4 / 10	1.5 - 4.1	4.9	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	5350	7800	ug/L	IPSW-08-071602	10 / 10	N/A	7800	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	147	425	ug/L	IPSW-08-071602	10 / 10	N/A	425	N/A	88 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	0.59 J	1.3 J	ug/L	IPSW-08-102502	6 / 10	1.4 - 1.6	1.3	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3960 J	6350 J	ug/L	IPSW-08-102201	10 / 10	N/A	6350	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	58950	90250	ug/L	IPSW-08-050802	10 / 10	N/A	90250	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.52 J	1.3	ug/L	IPSW-08-050802	4 / 10	0.65 - 1.3	1.3	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	8 J	40.5	ug/L	IPSW-08-102502	10 / 10	N/A	40.5	N/A	1100 N	9100	AWQC	N	BSL
SW-08	7429-90-5	Aluminum	109	3397	ug/L	IPSW-08-00-051602	6 / 6	N/A	3397	N/A	N/A	N/A	N/A	N	NTX
Storm Event (a)	7440-36-0	Antimony	0.82	1.8	ug/L	IPSW-08-00-051602	6 / 6	N/A	1.8	N/A	1.5 N	14	AWQC	Y	ASL
	7440-38-2	Arsenic	4.5	30	ug/L	IPSW-08-00-051602	6 / 6	N/A	30	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	23	95	ug/L	IPSW-08-00-051602	6 / 6	N/A	95	N/A	260 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	0.094	0.27	ug/L	IPSW-08-00-072502	6 / 6	N/A	0.27	N/A	7.3 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	0.10	1.3	ug/L	IPSW-08-00-051602	6 / 6	N/A	1.3	N/A	1.8 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	18397	24603	ug/L	IPSW-08-00-042602	6 / 6	N/A	24603	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	3.1	59	ug/L	IPSW-08-00-051602	6 / 6	N/A	59	N/A	11 N	N/A	N/A	Y	ASL
	7440-48-4	Cobalt	0.30	4.1	ug/L	IPSW-08-00-051602	6 / 6	N/A	4.1	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	4.1	79	ug/L	IPSW-08-00-051602	6 / 6	N/A	79	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	839	8858	ug/L	IPSW-08-00-051602	6 / 6	N/A	8858	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	3.9	83	ug/L	IPSW-08-00-051602	6 / 6	N/A	83	N/A	15 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	3177	4029	ug/L	IPSW-08-00-042602	6 / 6	N/A	4029	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	155	807	ug/L	IPSW-08-00-051602	6 / 6	N/A	807	N/A	88 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.054	0.24	ug/L	IPSW-08-00-051602	6 / 6	N/A	0.24	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	0.93	6.5	ug/L	IPSW-08-00-051602	6 / 6	N/A	6.5	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3055	3844	ug/L	IPSW-08-00-042602	6 / 6	N/A	3844	N/A	N/A	N/A	N/A	N	NUT
	7782-49-2	Selenium	1.1	1.7	ug/L	IPSW-08-00-051602	6 / 6	N/A	1.7	N/A	18 N	170	AWQC	N	BSL
	7440-22-4	Silver	0.25	0.40	ug/L	IPSW-08-00-101802	6 / 6	N/A	0.40	N/A	18 N	N/A	N/A	N	BSL
	7440-23-5	Sodium	29524	52968	ug/L	IPSW-08-00-042602	6 / 6	N/A	52968	N/A	N/A	N/A	N/A	N	NUT
	7440-28-0	Thallium	1.2	2.2	ug/L	IPSW-08-00-083102	6 / 6	N/A	2.2	N/A	0.24 N	0.24	AWQC	Y	ASL
	7440-62-2	Vanadium	0.87	10	ug/L	IPSW-08-00-051602	6 / 6	N/A	10	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	25	307	ug/L	IPSW-08-00-051602	6 / 6	N/A	307	N/A	1100 N	9100	AWQC	N	BSL

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OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-09 Baseflow (a)	7440-38-2	Arsenic	1.5 J	3.8	ug/L	IPSW-09-080602	4 / 10	1.9 - 6.3	3.8	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	31.6 J	36.9	ug/L	IPSW-09-102201	10 / 10	N/A	36.9	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	23000	32700	ug/L	IPSW-09-050802	10 / 10	N/A	32700	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	0.5 J	1.1 J	ug/L	IPSW-09-091801	3 / 10	0.6 - 1	1.1	N/A	11 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	1.2 J	1.2 J	ug/L	IPSW-09-071401	1 / 10	0.4 - 1	1.2	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	1.8 J	6.2 J	ug/L	IPSW-09-062002	5 / 10	2.1 - 6.3	6.2	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	92	315	ug/L	IPSW-09-071401	7 / 10	48.1 - 186	315	N/A	N/A	N/A	N/A	N	NTX
	7439-95-4	Magnesium	3890	5480	ug/L	IPSW-09-091002	10 / 10	N/A	5480	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	15.7	98.4	ug/L	IPSW-09-071401	10 / 10	N/A	98.4	N/A	88 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	0.72 J	1.6 J	ug/L	IPSW-09-102201	2 / 10	0.7 - 1.8	1.6	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3250 J	4960	ug/L	IPSW-09-050802	10 / 10	N/A	4960	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	49900	92300	ug/L	IPSW-09-050802	10 / 10	N/A	92300	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	1.6	1.6	ug/L	IPSW-09-071401	1 / 10	0.4 - 1.3	1.6	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	2.5 J	15.7 J	ug/L	IPSW-09-050802	5 / 10	0.7 - 8.6	15.7	N/A	1100 N	9100	AWQC	N	BSL
SW-09 Storm Event (a)	7440-36-0	Antimony	2.5 J	2.5 J	ug/L	IPSW-09-051502	1 / 6	1.2 - 2.8	2.5	N/A	1.5 N	14	AWQC	Y	ASL
	7440-38-2	Arsenic	1.95 J	4.2	ug/L	IPSW-09-092502	3 / 6	2 - 9.3	4.2	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	32.15	36.05	ug/L	IPSW-09-092502	6 / 6	N/A	36.05	N/A	260 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	0.38 J	0.38 J	ug/L	IPSW-09-042602	1 / 6	0.2 - 0.4	0.38	N/A	1.8 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	30150	34650	ug/L	IPSW-09-042602	6 / 6	N/A	34650	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	0.605 J	0.605 J	ug/L	IPSW-09-042602	1 / 6	0.4 - 1.2	0.605	N/A	11 N	N/A	N/A	N	BSL
	7440-50-8	Copper	3.5	3.5	ug/L	IPSW-09-083102	1 / 6	3.2 - 4.6	3.5	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	77.75 J	234	ug/L	IPSW-09-051502	4 / 6	99.1 - 136	234	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	1.035 J	1.3 J	ug/L	IPSW-09-083102	2 / 6	0.7 - 2.3	1.3	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	4970	5735	ug/L	IPSW-09-101802	6 / 6	N/A	5735	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	22.7	72.4	ug/L	IPSW-09-051502	6 / 6	N/A	72.4	N/A	88 N	N/A	N/A	N	BSL
	7440-02-0	Nickel	0.55 J	1.4 J	ug/L	IPSW-09-051502	2 / 6	0.77 - 1.6	1.4	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3690 J	5645	ug/L	IPSW-09-042602	6 / 6	N/A	5645	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	63600	109000	ug/L	IPSW-09-042602	6 / 6	N/A	109000	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	0.62 J	0.93 J	ug/L	IPSW-09-083102	2 / 6	0.4 - 1.3	0.93	N/A	26 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	2.4 J	115 J	ug/L	IPSW-09-051502	3 / 6	3.2 - 16.5	115	N/A	1100 N	9100	AWQC	N	BSL

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TABLE 3-2.7
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SW-10 Baseflow (a)	7429-90-5	Aluminum	60.6 J	60.6 J	ug/L	IPSW-10-071401	1 / 10	37.2 - 200	60.6	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	2.4 J	2.4 J	ug/L	IPSW-10-080602	1 / 10	1.2 - 5.8	2.4	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	34.5	45.8	ug/L	IPSW-10-102201	10 / 10	N/A	45.8	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	24200	32800	ug/L	IPSW-10-050802	10 / 10	N/A	32800	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	0.66 J	1.4 J	ug/L	IPSW-10-071602	7 / 10	0.8 - 3	1.4	N/A	11 N	N/A	N/A	N	BSL
	7440-50-8	Copper	1.7 J	3.4 J	ug/L	IPSW-10-062002	5 / 10	1.8 - 5.4	3.4	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	107 J	377	ug/L	IPSW-10-071602	7 / 10	60 - 171	377	N/A	N/A	N/A	N/A	N	NTX
	7439-95-4	Magnesium	4610	6790	ug/L	IPSW-10-102201	10 / 10	N/A	6790	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	12.9	65.1	ug/L	IPSW-10-102502	10 / 10	N/A	65.1	N/A	88 N	N/A	N/A	N	BSL
	7439-97-6	Mercury	0.36	0.36	ug/L	IPSW-10-102502	1 / 10	0.1 - 0.15	0.36	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	0.85 J	1.6	ug/L	IPSW-10-091801	3 / 10	0.9 - 1.5	1.6	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	3540 J	5150 J	ug/L	IPSW-10-062002	10 / 10	N/A	5150	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	54400	102000	ug/L	IPSW-10-050802	10 / 10	N/A	102000	N/A	N/A	N/A	N/A	N	NUT
	7440-66-6	Zinc	0.73 J	11.9 J	ug/L	IPSW-10-050802	6 / 10	0.7 - 8.3	11.9	N/A	1100 N	9100	AWQC	N	BSL
SW-10 Storm Event (a)	7440-38-2	Arsenic	2.775 J	2.775 J	ug/L	IPSW-10-083102	1 / 6	1.3 - 3	2.775	N/A	0.045 C	0.018	AWQC	Y	ASL
	7440-39-3	Barium	35.3	46.05	ug/L	IPSW-10-101802	6 / 6	N/A	46.05	N/A	260 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	29400	33100	ug/L	IPSW-10-101802	6 / 6	N/A	33100	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	0.78 J	2	ug/L	IPSW-10-042602	4 / 6	0.4 - 0.99	2	N/A	11 N	N/A	N/A	N	BSL
	7440-50-8	Copper	2.1 J	2.1 J	ug/L	IPSW-10-083102	1 / 6	2.5 - 5.1	2.1	N/A	150 N	1300	AWQC	N	BSL
	7439-89-6	Iron	122.5	122.5	ug/L	IPSW-10-101802	1 / 6	49.8 - 124	122.5	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	1.125 J	1.125 J	ug/L	IPSW-10-083102	1 / 6	0.7 - 2.3	1.125	N/A	15 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	5550	7235	ug/L	IPSW-10-101802	6 / 6	N/A	7235	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	10.9	55.45	ug/L	IPSW-10-101802	6 / 6	N/A	55.45	N/A	88 N	N/A	N/A	N	BSL
	7439-97-6	Mercury	0.1 J	0.1 J	ug/L	IPSW-10-092502	1 / 6	0.1	0.1	N/A	1.1 N	0.05	AWQC	Y	ASL
	7440-02-0	Nickel	1.4 J	3.25 J	ug/L	IPSW-10-083102	2 / 6	0.9 - 1.9	3.25	N/A	73 N	610	AWQC	N	BSL
	7440-09-7	Potassium	4120 J	5580	ug/L	IPSW-10-042602	6 / 6	N/A	5580	N/A	N/A	N/A	N/A	N	NUT
	7440-23-5	Sodium	59150	111000	ug/L	IPSW-10-042602	6 / 6	N/A	111000	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	1 J	1 J	ug/L	IPSW-10-092502	1 / 6	0.4 - 1.6	1	N/A	26 N	N/A	N/A	N	BSL

(a) Data includes baseflow samples collected between July 2001 and October 2002 and storm event samples collected during storm events in April, May, July, August, September, and October 2002. Data from sample SW-MC-13 has been combined with SW-05 baseflow data.
(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for tap water (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
Lead value is is a drinking water criterion protective of blood lead levels in children (USEPA, 2002d).
PRG for chromium VI has been used for chromium.
PRG for mercuric chloride used for mercury.
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic
AWQC = Ambient Water Quality Criterion for Human Health (2002d)

US EPA ARCHIVE DOCUMENT

TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC05 (a)	7429-90-5	Aluminum	13000	19000	mg/Kg	SC0523	4 / 4	N/A	19000	N/A	N/A	N/A	N/A	N	NTX
	7440-36-0	Antimony	13	13	mg/Kg	SC0523	1 / 4	8.2 - 12	13	N/A	3.1 N	N/A	N/A	Y	ASL
	7440-38-2	Arsenic	210	900	mg/Kg	SC0523	4 / 4	N/A	900	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	55	78	mg/Kg	SC0523	4 / 4	N/A	78	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	1.1	1.5	mg/Kg	SC0523	2 / 4	1.2	1.5	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	4.2	24	mg/Kg	SC0534	4 / 4	N/A	24	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	5000	10000	mg/Kg	SC0534	4 / 4	N/A	10000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	700	1500	mg/Kg	SC0523	4 / 4	N/A	1500	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	10	17	mg/Kg	SC0523	4 / 4	N/A	17	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	450	1600	mg/Kg	SC0523	4 / 4	N/A	1600	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	24000	50000	mg/Kg	SC0523	4 / 4	N/A	50000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	240	640	mg/Kg	SC0523	4 / 4	N/A	640	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	1700	3100	mg/Kg	SC0501	4 / 4	N/A	3100	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	250	390	mg/Kg	SC0501	4 / 4	N/A	390	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	3.5 J	26 J	mg/Kg	SC0523	4 / 4	N/A	26	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	17	22	mg/Kg	SC0523	4 / 4	N/A	22	N/A	160 N	N/A	N/A	N	BSL
	7440-22-4	Silver	1.5	2	mg/Kg	SC0523	2 / 4	1.8	2	N/A	39 N	N/A	N/A	N	BSL
	7440-23-5	Sodium	1800	2100	mg/Kg	SC0534	2 / 4	1200	2100	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	34	61	mg/Kg	SC0523	4 / 4	N/A	61	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	790	1900	mg/Kg	SC0534	4 / 4	N/A	1900	N/A	2300 N	N/A	N/A	N	BSL
	7440-47-3	Chromium VI	7.51	16.09	mg/Kg	SC0523	4 / 4	N/A	16.09	N/A	30 C	N/A	N/A	N	BSL
SC06 (a)	7429-90-5	Aluminum	2400	19000	mg/Kg	SC0612	4 / 4	N/A	19000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	66	1700	mg/Kg	SC0612	4 / 4	N/A	1700	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	14	150	mg/Kg	SC0601	4 / 4	N/A	150	N/A	540 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	6.9	48	mg/Kg	SC0612	3 / 4	1.6	48	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	2000.0	6800.0	mg/Kg	SC0601	4 / 4	N/A	6800	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	52	750	mg/Kg	SC0601	4 / 4	N/A	750	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	10	52	mg/Kg	SC0601	3 / 4	3.3	52	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	41	950	mg/Kg	SC0612	4 / 4	N/A	950	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	5000	120000	mg/Kg	SC0601	4 / 4	N/A	120000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	22	620	mg/Kg	SC0612	4 / 4	N/A	620	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	460	3300	mg/Kg	SC0601	4 / 4	N/A	3300	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	110	1800	mg/Kg	SC0601	4 / 4	N/A	1800	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.31 J	8.2 J	mg/Kg	SC0601	4 / 4	N/A	8.2	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	8	39	mg/Kg	SC0601	2 / 4	6.6 - 22	39	N/A	160 N	N/A	N/A	N	BSL
	7440-62-2	Vanadium	5.3	64	mg/Kg	SC0601	4 / 4	N/A	64	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	200	4600	mg/Kg	SC0612	4 / 4	N/A	4600	N/A	2300 N	N/A	N/A	Y	ASL
	7440-47-3	Chromium VI	0.56	8.05	mg/Kg	SC0601	4 / 4	N/A	8.05	N/A	30 C	N/A	N/A	N	BSL

US EPA ARCHIVE DOCUMENT

TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC07 (a)	7429-90-5	Aluminum	5200	10000	mg/Kg	SC0712	3 / 3	N/A	10000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	61	440	mg/Kg	SC0701	4 / 4	N/A	440	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	19	95	mg/Kg	SC0701	4 / 4	N/A	95	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	1.2	1.6	mg/Kg	SC0723	2 / 4	1 - 3.4	1.6	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	2.7	25	mg/Kg	SC0701	4 / 4	N/A	25	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	12000	18000	mg/Kg	SC0723	4 / 4	N/A	18000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	240	2700	mg/Kg	SC0701	4 / 4	N/A	2700	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	8.6	68	mg/Kg	SC0701	4 / 4	N/A	68	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	77	910	mg/Kg	SC0701	4 / 4	N/A	910	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	6500	59000	mg/Kg	SC0701	4 / 4	N/A	59000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	36	570	mg/Kg	SC0701	4 / 4	N/A	570	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	1400	3200	mg/Kg	SC0701	4 / 4	N/A	3200	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	270	2600	mg/Kg	SC0701	4 / 4	N/A	2600	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.41 J	3.7 J	mg/Kg	SC0701	4 / 4	N/A	3.7	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	9	49	mg/Kg	SC0701	4 / 4	N/A	49	N/A	160 N	N/A	N/A	N	BSL
	7440-62-2	Vanadium	30	72	mg/Kg	SC0701	4 / 4	N/A	72	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	460	4800	mg/Kg	SC0701	4 / 4	N/A	4800	N/A	2300 N	N/A	N/A	Y	ASL
	7440-47-3	Chromium VI	2.57	28.96	mg/Kg	SC0701	4 / 4	N/A	28.96	N/A	30 C	N/A	N/A	N	BSL
SC08 (a)	7429-90-5	Aluminum	1700	21500	mg/Kg	SC0801	4 / 4	N/A	21500	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	140	1250	mg/Kg	SC0801	2 / 4	N/A	1250	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	6.3	93.5	mg/Kg	SC0801	4 / 4	N/A	93.5	N/A	540 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	3.6	22.4	mg/Kg	SC0801	2 / 4	1 - 3.4	22.4	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	480	8670	mg/Kg	SC0801	4 / 4	N/A	8670	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	5.5	1430	mg/Kg	SC0801	4 / 4	N/A	1430	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	4.5	31.1	mg/Kg	SC0801	2 / 4	N/A	31.1	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	130	1410	mg/Kg	SC0801	2 / 4	N/A	1410	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	1800	58200	mg/Kg	SC0801	4 / 4	N/A	58200	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	56	676	mg/Kg	SC0801	2 / 4	N/A	676	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	560	2090	mg/Kg	SC0801	4 / 4	N/A	2090	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	25	591	mg/Kg	SC0801	4 / 4	N/A	591	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	1	14	mg/Kg	SC0801	2 / 4	N/A	14	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-62-2	Vanadium	12	66.9	mg/Kg	SC0801	2 / 4	N/A	66.9	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	43	2650	mg/Kg	SC0801	4 / 4	N/A	2650	N/A	2300 N	N/A	N/A	Y	ASL
	7440-47-3	Chromium VI	0.06	15.34	mg/Kg	SC0801	4 / 4	N/A	15.34	N/A	30 C	N/A	N/A	N	BSL

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TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC09 (a)	7429-90-5	Aluminum	4600	7200	mg/Kg	SC0912	4 / 4	N/A	7200	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	31	89	mg/Kg	SC0901	4 / 4	N/A	89	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	14	24	mg/Kg	SC0912	4 / 4	N/A	24	N/A	540 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	1800	2300	mg/Kg	SC0912	4 / 4	N/A	2300	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	33	190	mg/Kg	SC0901	4 / 4	N/A	190	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	3.4	5	mg/Kg	SC0912	3 / 4	3.3	5	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	58	160	mg/Kg	SC0901	4 / 4	N/A	160	N/A	310 N	N/A	N/A	N	BSL
	7439-89-6	Iron	6300	13000	mg/Kg	SC0901	4 / 4	N/A	13000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	19	69	mg/Kg	SC0901	4 / 4	N/A	69	N/A	400 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	1600	3000	mg/Kg	SC0912	4 / 4	N/A	3000	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	120	140	mg/Kg	SC0901	4 / 4	N/A	140	N/A	180 N	N/A	N/A	N	BSL
	7439-97-6	Mercury	0.28	1.2	mg/Kg	SC0901	4 / 4	N/A	1.2	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	6.7	7.8	mg/Kg	SC0912	3 / 4	6.6	7.8	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1500	1500	mg/Kg	SC0912	1 / 4	1000 - 1100	1500	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	10	19	mg/Kg	SC0901	4 / 4	N/A	19	N/A	55 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	260	740	mg/Kg	SC0912	4 / 4	N/A	740	N/A	2300 N	N/A	N/A	N	BSL
	7440-47-3	Chromium VI	0.35	2.04	mg/Kg	SC0901	4 / 4	N/A	2.04	N/A	30 C	N/A	N/A	N	BSL
SC10 (a)	7429-90-5	Aluminum	4600	6300	mg/Kg	SC1034	4 / 4	N/A	6300	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	21	67	mg/Kg	SC1001	2 / 4	19 - 20	67	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	17	30	mg/Kg	SC1023	4 / 4	N/A	30	N/A	540 N	N/A	N/A	N	BSL
	7440-70-2	Calcium	1100	2300	mg/Kg	SC1001	4 / 4	N/A	2300	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	12	130	mg/Kg	SC1001	4 / 4	N/A	130	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	3.3	4.5	mg/Kg	SC1034	4 / 4	N/A	4.5	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	15	47	mg/Kg	SC1001	4 / 4	N/A	47	N/A	310 N	N/A	N/A	N	BSL
	7439-89-6	Iron	6500	11000	mg/Kg	SC1001	4 / 4	N/A	11000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	28	28	mg/Kg	SC1001	1 / 4	9.6 - 10	28	N/A	400 N	N/A	N/A	N	BSL
	7439-95-4	Magnesium	1000	2600	mg/Kg	SC1034	4 / 4	N/A	2600	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	74	110	mg/Kg	SC1001	4 / 4	N/A	110	N/A	180 N	N/A	N/A	N	BSL
	7439-97-6	Mercury	0.033	0.18	mg/Kg	SC1001	2 / 4	0.025	0.18	N/A	0.61 N	N/A	N/A	N	BSL
	7440-02-0	Nickel	6.8	10	mg/Kg	SC1034	2 / 4	6 - 6.6	10	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1000	1000	mg/Kg	SC1023	1 / 4	980 - 1100	1000	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	9.2	14	mg/Kg	SC1034	4 / 4	N/A	14	N/A	55 N	N/A	N/A	N	BSL
	7440-66-6	Zinc	73	150	mg/Kg	SC1001	4 / 4	N/A	150	N/A	2300 N	N/A	N/A	N	BSL
	7440-47-3	Chromium VI	0.13	1.39	mg/Kg	SC1001	4 / 4	N/A	1.39	N/A	30 C	N/A	N/A	N	BSL

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TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC11 (a)	7429-90-5	Aluminum	11500	17000	mg/Kg	SC1134	4 / 4	N/A	17000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	97	110	mg/Kg	SC1112	4 / 4	N/A	110	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	97	120	mg/Kg	SC1134	4 / 4	N/A	120	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	1	1.2	mg/Kg	SC1134	3 / 4	0.85	1.2	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	4.2	7.2	mg/Kg	SC1134	4 / 4	N/A	7.2	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	4900	6000	mg/Kg	SC1134	4 / 4	N/A	6000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	240	370	mg/Kg	SC1134	4 / 4	N/A	370	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	18.5	22	mg/Kg	SC1112	4 / 4	N/A	22	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	215	340	mg/Kg	SC1134	4 / 4	N/A	340	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	29000	32000	mg/Kg	SC1112	4 / 4	N/A	32000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	250	1200	mg/Kg	SC1134	4 / 4	N/A	1200	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	4100	5300	mg/Kg	SC1134	4 / 4	N/A	5300	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	440	630	mg/Kg	SC1112	4 / 4	N/A	630	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	1.7	2.2	mg/Kg	SC1134	4 / 4	N/A	2.2	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	29.5	45	mg/Kg	SC1134	4 / 4	N/A	45	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1100	1400	mg/Kg	SC1134	4 / 4	N/A	1400	N/A	N/A	N/A	N/A	N	NUT
	7440-22-4	Silver	4.6	4.6	mg/Kg	SC1134	1 / 4	1.1 - 1.4	4.6	N/A	39 N	N/A	N/A	N	BSL
	7440-62-2	Vanadium	47.5	71	mg/Kg	SC1134	4 / 4	N/A	71	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	960	1400	mg/Kg	SC1112	4 / 4	N/A	1400	N/A	2300 N	N/A	N/A	N	BSL
	7440-47-3	Chromium VI	2.57	3.97	mg/Kg	SC1134	4 / 4	N/A	3.97	N/A	30 C	N/A	N/A	N	BSL

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TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC12 (a)	7429-90-5	Aluminum	17000	20000	mg/Kg	SC1234	4 / 4	N/A	20000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	100	130	mg/Kg	SC1201	4 / 4	N/A	130	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	130	140	mg/Kg	SC1201	4 / 4	N/A	140	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	1.1	1.5	mg/Kg	SC1234	4 / 4	N/A	1.5	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	9.3	11	mg/Kg	SC1212	4 / 4	N/A	11	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	5400	6900	mg/Kg	SC1201	4 / 4	N/A	6900	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	390	740	mg/Kg	SC1234	4 / 4	N/A	740	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	21	23	mg/Kg	SC1201	4 / 4	N/A	23	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	370	460	mg/Kg	SC1234	4 / 4	N/A	460	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	30000	37000	mg/Kg	SC1201	4 / 4	N/A	37000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	520	1300	mg/Kg	SC1234	4 / 4	N/A	1300	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	5000	5500	mg/Kg	SC1234	4 / 4	N/A	5500	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	470	960	mg/Kg	SC1201	4 / 4	N/A	960	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	2.4	2.7	mg/Kg	SC1234	4 / 4	N/A	2.7	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	39	41	mg/Kg	SC1234	4 / 4	N/A	41	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1500	1560	mg/Kg	SC1234	4 / 4	N/A	1560	N/A	N/A	N/A	N/A	N	NUT
	7782-49-2	Selenium	10	10	mg/Kg	SC1234	1 / 4	7.6 - 8.8	10	N/A	39 N	N/A	N/A	N	BSL
	7440-22-4	Silver	3.1	3.6	mg/Kg	SC1234	3 / 4	1.2	3.6	N/A	39 N	N/A	N/A	N	BSL
	7440-62-2	Vanadium	64	86	mg/Kg	SC1234	4 / 4	N/A	86	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	1700	1800	mg/Kg	SC1201	4 / 4	N/A	1800	N/A	2300 N	N/A	N/A	N	BSL
	7440-47-3	Chromium VI	4.18	7.94	mg/Kg	SC1234	4 / 4	N/A	7.94	N/A	30 C	N/A	N/A	N	BSL

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TABLE 3-2.8
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (N/C) (4)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
SC13 (a)	7429-90-5	Aluminum	9400	22000	mg/Kg	SC1301	4 / 4	N/A	22000	N/A	N/A	N/A	N/A	N	NTX
	7440-38-2	Arsenic	45	120	mg/Kg	SC1301	4 / 4	N/A	120	N/A	0.39 C	N/A	N/A	Y	ASL
	7440-39-3	Barium	72	120	mg/Kg	SC1301	4 / 4	N/A	120	N/A	540 N	N/A	N/A	N	BSL
	7440-41-7	Beryllium	1	1.5	mg/Kg	SC1301	2 / 4	1	1.5	N/A	15 N	N/A	N/A	N	BSL
	7440-43-9	Cadmium	4.0	12.0	mg/Kg	SC1301	4 / 4	N/A	12	N/A	3.7 N	N/A	N/A	Y	ASL
	7440-70-2	Calcium	5900	18000	mg/Kg	SC1334	4 / 4	N/A	18000	N/A	N/A	N/A	N/A	N	NUT
	7440-47-3	Chromium	200	600	mg/Kg	SC1301	4 / 4	N/A	600	N/A	10000 N	N/A	N/A	N	BSL
	7440-48-4	Cobalt	8.5	28	mg/Kg	SC1301	4 / 4	N/A	28	N/A	N/A	N/A	N/A	N	NTX
	7440-50-8	Copper	210	460	mg/Kg	SC1301	4 / 4	N/A	460	N/A	310 N	N/A	N/A	Y	ASL
	7439-89-6	Iron	11500	32000	mg/Kg	SC1301	4 / 4	N/A	32000	N/A	N/A	N/A	N/A	N	NTX
	7439-92-1	Lead	130	810	mg/Kg	SC1301	4 / 4	N/A	810	N/A	400 N	N/A	N/A	Y	ASL
	7439-95-4	Magnesium	2100	5300	mg/Kg	SC1301	4 / 4	N/A	5300	N/A	N/A	N/A	N/A	N	NUT
	7439-96-5	Manganese	180	370	mg/Kg	SC1301	4 / 4	N/A	370	N/A	180 N	N/A	N/A	Y	ASL
	7439-97-6	Mercury	0.95 J	2.1 J	mg/Kg	SC1301	4 / 4	N/A	2.1	N/A	0.61 N	N/A	N/A	Y	ASL
	7440-02-0	Nickel	10.5	37	mg/Kg	SC1301	4 / 4	N/A	37	N/A	160 N	N/A	N/A	N	BSL
	7440-09-7	Potassium	1400	1400	mg/Kg	SC1301	1 / 4	780 - 1000	1400	N/A	N/A	N/A	N/A	N	NUT
	7440-22-4	Silver	1.8	1.8	mg/Kg	SC1301	1 / 4	1.2 - 1.5	1.8	N/A	39 N	N/A	N/A	N	BSL
	7440-23-5	Sodium	750	750	mg/Kg	SC1301	1 / 4	780 - 1000	750	N/A	N/A	N/A	N/A	N	NUT
	7440-62-2	Vanadium	30	87	mg/Kg	SC1301	4 / 4	N/A	87	N/A	55 N	N/A	N/A	Y	ASL
	7440-66-6	Zinc	815	2500	mg/Kg	SC1301	4 / 4	N/A	2500	N/A	2300 N	N/A	N/A	Y	ASL
	7440-47-3	Chromium VI	2.15	6.44	mg/Kg	SC1301	4 / 4	N/A	6.44	N/A	30 C	N/A	N/A	N	BSL

(a) Data presented for each sediment core exposure point include one sample from each of four depth intervals: 0-1 foot, 1-2 foot, 2-3 foot, and 3-4 foot.

(1) Minimum/maximum detected concentration.
(2) Maximum concentration used for screening.
(3) Refer to supporting information for background discussion.
(4) USEPA Region 9 PRGs for residential soil (adjusted to an hazard quotient = 0.1 for noncarcinogens), October 1, 2002.
PRG for chromium III used for chromium.
PRG for methylmercury used for mercury.
The screening toxicity value for lead is the residential soil lead guidance level of 400 mg/Kg (USEPA, 1994a).
(5) Rationale Codes: Selection Reason: Above Screening Levels (ASL)
Deletion Reason: No Toxicity Information (NTX)
Essential Nutrient (NUT)
Below Screening Level (BSL)

Definitions:
COPC = Chemical of Potential Concern
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
PRG = Preliminary Remedial Goal
N/A = Not Applicable or Not Available
J = Estimated Value
C = Carcinogenic
N = Non-Carcinogenic

US EPA ARCHIVE DOCUMENT

TABLE 3-3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 1									
	Heptachlor epoxide	ug/L	1.5E-02	6.2E-02 (NP)	1.9E-03 J	1.9E-03	ug/L	Max	(g)
	Arsenic	ug/L	2.5E+01	4.6E+01 (G)	7.7E+01	4.6E+01	ug/L	95% UCL - G	(h)
	Cadmium	ug/L	4.3E-01	3.9E+00 (NP)	2.5E+00	2.5E+00	ug/L	Max	(g)
	Chromium	ug/L	2.6E+01	5.9E+01 (T)	1.5E+02	5.9E+01	ug/L	95% UCL - T	(e)
	Lead	ug/L	1.3E+01	1.2E+02 (G)	7.6E+01 J	7.6E+01	ug/L	Max	(g)
	Manganese	ug/L	4.7E+02	5.8E+02 (N)	6.9E+02	5.8E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	2.0E-01	6.1E-01 (G)	8.8E-01	6.1E-01	ug/L	95% UCL - G	(h)
Upper Reach 2									
	Trichloroethene	ug/L	2.0E+00	N/A (<4)	2.0E+00	2.0E+00	ug/L	Max	(a)
	Arsenic	ug/L	1.6E+01	N/A (<4)	2.0E+01	2.0E+01	ug/L	Max	(a)
	Cadmium	ug/L	4.9E-01	N/A (<4)	2.3E-01	2.3E-01	ug/L	Max	(a)
	Chromium	ug/L	8.2E+00	N/A (<4)	1.2E+01	1.2E+01	ug/L	Max	(a)
	Lead	ug/L	4.8E+00	N/A (<4)	7.7E+00 J	7.7E+00	ug/L	Max	(a)
	Manganese	ug/L	7.1E+02	N/A (<4)	7.8E+02	7.8E+02	ug/L	Max	(a)
	Mercury	ug/L	1.2E-01	N/A (<4)	1.5E-01 J	1.5E-01	ug/L	Max	(a)
Lower Reach 2									
	Arsenic	ug/L	6.8E+00	N/A (<4)	6.8E+00	6.8E+00	ug/L	Max	(a)
	Chromium	ug/L	2.2E+00	N/A (<4)	2.2E+00	2.2E+00	ug/L	Max	(a)
	Manganese	ug/L	3.6E+02	N/A (<4)	3.6E+02 J	3.6E+02	ug/L	Max	(a)
Reach 3									
	Chromium	ug/L	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	ug/L	Max	(a)
	Lead	ug/L	4.3E+00	N/A (<4)	4.3E+00	4.3E+00	ug/L	Max	(a)
	Manganese	ug/L	5.9E+02	N/A (<4)	5.9E+02	5.9E+02	ug/L	Max	(a)
	Mercury	ug/L	2.2E-01	N/A (<4)	2.2E-01 J	2.2E-01	ug/L	Max	(a)
Reach 4									
	Chromium	ug/L	4.3E+00	N/A (<4)	4.3E+00	4.3E+00	ug/L	Max	(a)
	Lead	ug/L	5.7E+00	N/A (<4)	5.7E+00	5.7E+00	ug/L	Max	(a)
	Manganese	ug/L	5.0E+02	N/A (<4)	5.0E+02	5.0E+02	ug/L	Max	(a)

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TABLE 3-3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 5									
	Chloroform	ug/L	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	ug/L	Max	(a)
	Tetrachloroethene	ug/L	2.0E+00	N/A (<4)	2.0E+00	2.0E+00	ug/L	Max	(a)
	Chromium	ug/L	8.5E-01	N/A (<4)	8.5E-01	8.5E-01	ug/L	Max	(a)
	Manganese	ug/L	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	ug/L	Max	(a)
Upper Reach 6									
	Arsenic	ug/L	3.8E+00	N/A (<4)	5.2E+00	5.2E+00	ug/L	Max	(a)
	Chromium	ug/L	1.7E+00	N/A (<4)	3.7E+00	3.7E+00	ug/L	Max	(a)
	Lead	ug/L	3.2E+00	N/A (<4)	7.5E+00 J	7.5E+00	ug/L	Max	(a)
	Manganese	ug/L	2.1E+02	N/A (<4)	3.2E+02	3.2E+02	ug/L	Max	(a)
	Mercury	ug/L	7.7E-02	N/A (<4)	6.9E-02 J	6.9E-02	ug/L	Max	(a)
Lower Reach 6									
(Sandy Beach)	Arsenic	ug/L	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	ug/L	Max	(a)
	Chromium	ug/L	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	ug/L	Max	(a)
	Lead	ug/L	4.1E+00	N/A (<4)	4.1E+00 J	4.1E+00	ug/L	Max	(a)
	Manganese	ug/L	7.1E+01	N/A (<4)	7.1E+01	7.1E+01	ug/L	Max	(a)
	Mercury	ug/L	4.0E-02	N/A (<4)	4.0E-02 J	4.0E-02	ug/L	Max	(a)

(1) Refer to Tables 3-2.1.1 through 3-2.1.8 for sample groupings; only COPCs selected on Table 3-2.1 and detected in each grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.1.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 1									
	Heptachlor epoxide	ug/L	1.5E-02	6.2E-02 (NP)	1.9E-03 J	1.9E-03	ug/L	Max	(c)
	Arsenic	ug/L	2.5E+01	4.6E+01 (G)	7.7E+01	4.6E+01	ug/L	95% UCL - G	(h)
	Cadmium	ug/L	4.3E-01	3.9E+00 (NP)	2.5E+00	4.3E-01	ug/L	Mean	(b)
	Chromium	ug/L	2.6E+01	5.9E+01 (T)	1.5E+02	5.9E+01	ug/L	95% UCL - T	(e)
	Lead	ug/L	1.3E+01	1.2E+02 (G)	7.6E+01 J	1.3E+01	ug/L	Mean	(b)
	Manganese	ug/L	4.7E+02	5.8E+02 (N)	6.9E+02	5.8E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	2.0E-01	6.1E-01 (G)	8.8E-01	6.1E-01	ug/L	95% UCL - G	(h)
Upper Reach 2									
	Trichloroethene	ug/L	2.0E+00	N/A (<4)	2.0E+00	2.0E+00	ug/L	Max	(c)
	Arsenic	ug/L	1.6E+01	N/A (<4)	2.0E+01	1.6E+01	ug/L	Mean	(b)
	Cadmium	ug/L	4.9E-01	N/A (<4)	2.3E-01	2.3E-01	ug/L	Max	(c)
	Chromium	ug/L	8.2E+00	N/A (<4)	1.2E+01	8.2E+00	ug/L	Mean	(b)
	Lead	ug/L	4.8E+00	N/A (<4)	7.7E+00 J	4.8E+00	ug/L	Mean	(b)
	Manganese	ug/L	7.1E+02	N/A (<4)	7.8E+02	7.1E+02	ug/L	Mean	(b)
	Mercury	ug/L	1.2E-01	N/A (<4)	1.5E-01 J	1.2E-01	ug/L	Mean	(b)
Lower Reach 2									
	Arsenic	ug/L	6.8E+00	N/A (<4)	6.8E+00	6.8E+00	ug/L	Max	(c)
	Chromium	ug/L	2.2E+00	N/A (<4)	2.2E+00	2.2E+00	ug/L	Max	(c)
	Manganese	ug/L	3.6E+02	N/A (<4)	3.6E+02 J	3.6E+02	ug/L	Max	(c)
Reach 3									
	Chromium	ug/L	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	ug/L	Max	(c)
	Lead	ug/L	4.3E+00	N/A (<4)	4.3E+00	4.3E+00	ug/L	Max	(c)
	Manganese	ug/L	5.9E+02	N/A (<4)	5.9E+02	5.9E+02	ug/L	Max	(c)
	Mercury	ug/L	2.2E-01	N/A (<4)	2.2E-01 J	2.2E-01	ug/L	Max	(c)
Reach 4									
	Chromium	ug/L	4.3E+00	N/A (<4)	4.3E+00	4.3E+00	ug/L	Max	(c)
	Lead	ug/L	5.7E+00	N/A (<4)	5.7E+00	5.7E+00	ug/L	Max	(c)
	Manganese	ug/L	5.0E+02	N/A (<4)	5.0E+02	5.0E+02	ug/L	Max	(c)

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TABLE 3-3.1.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 5									
	Chloroform	ug/L	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	ug/L	Max	(c)
	Tetrachloroethene	ug/L	2.0E+00	N/A (<4)	2.0E+00	2.0E+00	ug/L	Max	(c)
	Chromium	ug/L	8.5E-01	N/A (<4)	8.5E-01	8.5E-01	ug/L	Max	(c)
	Manganese	ug/L	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	ug/L	Max	(c)
Upper Reach 6									
	Arsenic	ug/L	3.8E+00	N/A (<4)	5.2E+00	3.8E+00	ug/L	Mean	(b)
	Chromium	ug/L	1.7E+00	N/A (<4)	3.7E+00	1.7E+00	ug/L	Mean	(b)
	Lead	ug/L	3.2E+00	N/A (<4)	7.5E+00 J	3.2E+00	ug/L	Mean	(b)
	Manganese	ug/L	2.1E+02	N/A (<4)	3.2E+02	2.1E+02	ug/L	Mean	(b)
	Mercury	ug/L	7.7E-02	N/A (<4)	6.9E-02 J	6.9E-02	ug/L	Max	(c)
Lower Reach 6 (Sandy Beach)	Arsenic	ug/L	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	ug/L	Max	(c)
	Chromium	ug/L	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	ug/L	Max	(c)
	Lead	ug/L	4.1E+00	N/A (<4)	4.1E+00 J	4.1E+00	ug/L	Max	(c)
	Manganese	ug/L	7.1E+01	N/A (<4)	7.1E+01	7.1E+01	ug/L	Max	(c)
	Mercury	ug/L	4.0E-02	N/A (<4)	4.0E-02 J	4.0E-02	ug/L	Max	(c)

(1) Refer to Tables 3-2.1.1 through 3-2.1.8 for sample groupings; only COPCs selected on Table 3-2.1 and detected in each grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.7E+02	2.1E+02 (N)	2.2E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.1E+01	5.6E+01 (N)	6.6E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.3E+00	2.2E+00 (N)	2.7E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.9E+02	2.5E+02 (N)	2.6E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.0E+02	3.0E+02 (N)	3.7E+02	3.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.6E+02	2.2E+02 (N)	2.5E+02	2.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.6E+02	2.5E+02 (N)	3.2E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	4.5E+00 (N)	5.9E+00	4.5E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.1E+01	1.4E+01 (N)	1.6E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.4E+01	3.1E+01 (N)	3.3E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.4E+02	4.9E+02 (N)	6.0E+02 J	4.9E+02	mg/kg	95% UCL - N	(d)
Station 14									
	Benzo(a)anthracene	mg/kg	9.7E-01	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	8.9E-01 J	8.9E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.1E+00 J	2.1E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	1.1E+00	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(a)
	Phenanthrene	mg/kg	1.5E+00	N/A (<4)	2.6E+00 J	2.6E+00	mg/kg	Max	(a)
	Antimony	mg/kg	9.1E-01	N/A (<4)	9.9E-01 J	9.9E-01	mg/kg	Max	(a)
	Arsenic	mg/kg	6.1E+01	N/A (<4)	7.3E+01	7.3E+01	mg/kg	Max	(a)
	Barium	mg/kg	1.6E+01	N/A (<4)	1.8E+01	1.8E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	6.4E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Chromium	mg/kg	1.0E+02	N/A (<4)	2.2E+02	2.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	5.7E+01	N/A (<4)	6.5E+01	6.5E+01	mg/kg	Max	(a)
	Lead	mg/kg	6.8E+01	N/A (<4)	1.3E+02 J	1.3E+02	mg/kg	Max	(a)
	Manganese	mg/kg	1.3E+02	N/A (<4)	1.7E+02 J	1.7E+02	mg/kg	Max	(a)
	Mercury	mg/kg	5.9E-01	N/A (<4)	1.4E+00 J	1.4E+00	mg/kg	Max	(a)
	Nickel	mg/kg	7.3E+00	N/A (<4)	1.0E+01	1.0E+01	mg/kg	Max	(a)
	Thallium	mg/kg	4.9E-01	N/A (<4)	8.1E-01	8.1E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	1.1E+01	N/A (<4)	1.3E+01	1.3E+01	mg/kg	Max	(a)
	Zinc	mg/kg	2.2E+02	N/A (<4)	2.7E+02	2.7E+02	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 22/TT-22									
	Tetrachloroethene	mg/kg	1.1E+00	2.8E+00 (N)	3.2E+00	2.8E+00	mg/kg	95% UCL - N	(d)
	Trichloroethene	mg/kg	2.6E-01	7.0E-01 (N)	8.0E-01	7.0E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)anthracene	mg/kg	3.4E-01	N/A (<4)	3.0E-01	3.0E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	3.2E-01	N/A (<4)	2.0E-01	2.0E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	3.9E-01	4.9E-01 (NP)	4.4E-01	4.4E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	4.2E-01	N/A (<4)	5.4E-01 J	5.4E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	2.5E-01	N/A (<4)	4.4E-02 J	4.4E-02	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.1E-01	N/A (<4)	2.2E-01	2.2E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.0E-01	N/A (<4)	4.9E-01	4.9E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	3.2E-02	N/A (<4)	2.9E-02	2.9E-02	mg/kg	Max	(a)
	Antimony	mg/kg	7.0E+01	9.2E+02 (G)	3.3E+02 J	3.3E+02	mg/kg	Max	(g)
	Arsenic	mg/kg	2.1E+01	7.7E+01 (G)	8.7E+01 J	7.7E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	4.1E+01	4.9E+01 (NP)	5.1E+01 J	4.9E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	1.7E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	2.5E+01	6.5E+01 (T)	8.5E+01 J	6.5E+01	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	2.3E+01	2.9E+01 (N)	3.8E+01 J	2.9E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	6.8E+03	3.3E+04 (T)	4.1E+04 J	3.3E+04	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	7.1E+01	1.2E+02 (G)	1.9E+02 J	1.2E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E-01	4.6E-01 (G)	5.0E-01	4.6E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	7.8E+00	1.1E+01 (G)	1.8E+01	1.1E+01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	3.1E+01	4.1E+01 (N)	5.0E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.0E+01	9.6E+01 (N)	1.2E+02 J	9.6E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WH									
	Trichloroethene	mg/kg	5.3E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	5.6E-01 J	5.6E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	1.5E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	6.9E-01	N/A (<4)	7.2E-01 J	7.2E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	3.1E-01	N/A (<4)	3.2E-01 J	3.2E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	5.2E-01	N/A (<4)	7.4E-01 J	7.4E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.4E-01	N/A (<4)	5.7E-01 J	5.7E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	4.1E-02	N/A (<4)	5.8E-02	5.8E-02	mg/kg	Max	(a)
	Antimony	mg/kg	2.6E+01	3.5E+01 (G)	6.8E+01 J	3.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.7E+02	1.9E+03 (T)	3.2E+03	1.9E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	8.1E+01	9.3E+01 (N)	1.3E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	6.4E+00	1.1E+01 (G)	1.5E+01 J	1.1E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.9E+02	1.2E+03 (G)	2.1E+03	1.2E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.0E+02	1.2E+03 (T)	2.1E+03	1.2E+03	mg/kg	95% UCL - T	(e)
	Lead	mg/kg	1.5E+03	1.8E+03 (N)	2.5E+03	1.8E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	5.1E+02 (G)	7.8E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.0E+00	2.7E+01 (NP)	2.8E+01	2.7E+01	mg/kg	95% UCL - NP	(f)
	Nickel	mg/kg	2.4E+01	4.1E+01 (NP)	4.4E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	5.6E-01	7.7E-01 (N)	1.5E+00	7.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	7.8E+01	9.8E+01 (N)	1.6E+02	9.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.3E+03 (G)	3.2E+03	2.3E+03	mg/kg	95% UCL - G	(h)
	Chromium VI	mg/kg	6.4E-01	1.5E+00 (G)	2.8E+00 J	1.5E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WG									
	Trichloroethene	mg/kg	4.2E-02	N/A (<4)	4.2E-02 J	4.2E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	1.3E-01	N/A (<4)	1.3E-01 J	1.3E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	2.9E-01	N/A (<4)	2.9E-01 J	2.9E-01	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	2.0E-01	N/A (<4)	2.0E-01 J	2.0E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	4.6E-02	N/A (<4)	4.6E-02 J	4.6E-02	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.4E-01	N/A (<4)	1.4E-01 J	1.4E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	1.1E-02	N/A (<4)	1.1E-02	1.1E-02	mg/kg	Max	(a)
	Antimony	mg/kg	6.0E+00	9.2E+00 (G)	2.5E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	1.4E+02	2.6E+02 (T)	1.5E+03 J	2.6E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.4E+01 (N)	1.8E+02	9.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	6.4E+00 (N)	1.2E+01	6.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+02	9.3E+02 (G)	2.6E+03	9.3E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.8E+02	6.3E+02 (N)	1.3E+03	6.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	4.3E+02	5.2E+02 (N)	8.1E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.0E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.4E+00	3.0E+00 (T)	1.2E+01 J	3.0E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.5E+01 (N)	7.9E+01	3.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	3.6E-01	4.4E-01 (N)	7.0E-01 J	4.4E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.4E+01	6.5E+01 (N)	1.0E+02	6.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	8.7E+02	1.1E+03 (N)	2.1E+03	1.1E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WS/WSS									
	Antimony	mg/kg	4.0E+00	4.9E+00 (N)	7.2E+00 J	4.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.7E+02	2.3E+02 (N)	3.4E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.2E+02	1.4E+02 (N)	2.0E+02	1.4E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.1E+00	1.1E+01 (N)	1.7E+01	1.1E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.0E+02	7.3E+02 (N)	1.3E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.1E+02	4.1E+02 (N)	6.9E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.9E+02	3.7E+02 (N)	4.9E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.0E+03	1.2E+03 (N)	1.4E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.4E+00 (N)	1.8E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	3.0E+01	3.6E+01 (N)	4.6E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.6E-01	1.1E+00 (N)	2.2E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	3.7E+01	4.5E+01 (N)	5.6E+01	4.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.5E+03	2.0E+03 (N)	3.4E+03	2.0E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	6.6E-01	9.5E-01 (N)	1.7E+00 J	9.5E-01	mg/kg	95% UCL - N	(d)
Station TT-30									
	Arsenic	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(a)
	Barium	mg/kg	3.3E+01	N/A (<4)	3.3E+01 J	3.3E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	7.1E+00	N/A (<4)	7.1E+00 J	7.1E+00	mg/kg	Max	(a)
	Chromium	mg/kg	5.3E+03	N/A (<4)	5.3E+03 J	5.3E+03	mg/kg	Max	(a)
	Copper	mg/kg	3.8E+03	N/A (<4)	3.8E+03 J	3.8E+03	mg/kg	Max	(a)
	Lead	mg/kg	4.3E+02	N/A (<4)	4.3E+02 J	4.3E+02	mg/kg	Max	(a)
	Manganese	mg/kg	2.1E+02	N/A (<4)	2.1E+02 J	2.1E+02	mg/kg	Max	(a)
	Mercury	mg/kg	8.9E+01	N/A (<4)	8.9E+01 J	8.9E+01	mg/kg	Max	(a)
	Nickel	mg/kg	8.0E+00	N/A (<4)	8.0E+00	8.0E+00	mg/kg	Max	(a)
	Thallium	mg/kg	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	2.1E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(a)
	Zinc	mg/kg	1.2E+03	N/A (<4)	1.2E+03	1.2E+03	mg/kg	Max	(a)
	Chromium VI	mg/kg	6.9E+00	N/A (<4)	6.9E+00 J	6.9E+00	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-01									
	Antimony	mg/kg	1.2E+00	2.0E+00 (G)	4.0E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	4.1E+01	5.8E+01 (N)	9.9E+01 J	5.8E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.9E+01 (N)	1.1E+02	5.9E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	9.3E+00 (G)	1.6E+01 J	9.3E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.2E+02	3.3E+02 (N)	5.8E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.9E+02	7.5E+02 (G)	1.1E+03 J	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	3.2E+02	4.4E+02 (N)	6.5E+02 J	4.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.4E+02	6.9E+02 (G)	1.3E+03 J	6.9E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E+00	2.9E+00 (G)	4.8E+00 J	2.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.2E+00	2.0E+01 (NP)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	1.0E+00	2.5E+00 (T)	3.1E+00	2.5E+00	mg/kg	95% UCL - T	(e)
	Vanadium	mg/kg	5.4E+01	7.9E+01 (G)	1.1E+02	7.9E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	4.2E+02	6.4E+02 (N)	1.2E+03	6.4E+02	mg/kg	95% UCL - N	(d)
Station CB-02									
	Antimony	mg/kg	1.5E+00	1.8E+00 (N)	2.0E+00 J	1.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.7E+01	4.1E+01 (G)	5.6E+01 J	4.1E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	7.9E+01	1.7E+02 (T)	3.9E+02	1.7E+02	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	3.1E+00	3.8E+00 (N)	5.8E+00 J	3.8E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.1E+02	1.4E+02 (N)	2.5E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.5E+01	9.8E+01 (G)	1.7E+02	9.8E+01	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	1.2E+02	2.4E+02 (NP)	3.4E+02 J	2.4E+02	mg/kg	95% UCL - NP	(f)
	Manganese	mg/kg	5.6E+01	7.2E+01 (G)	1.1E+02 J	7.2E+01	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.4E-01	3.3E-01 (G)	5.8E-01	3.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	8.3E+00	1.0E+01 (N)	1.3E+01 J	1.0E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.7E+01	3.2E+01 (N)	4.6E+01	3.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.5E+02	3.1E+02 (N)	4.5E+02 J	3.1E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-03									
	Antimony	mg/kg	1.5E+00	6.8E+00 (NP)	4.8E+00 J	4.8E+00	mg/kg	Max	(g)
	Arsenic	mg/kg	2.7E+02	5.9E+02 (G)	1.4E+03	5.9E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	5.2E+01	6.7E+01 (N)	9.6E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.4E+00	1.3E+01 (G)	2.3E+01 J	1.3E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.6E+02	1.3E+03 (NP)	7.7E+02	7.7E+02	mg/kg	Max	(g)
	Copper	mg/kg	2.7E+02	3.8E+02 (N)	6.7E+02 J	3.8E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.0E+02	2.7E+02 (N)	4.4E+02 J	2.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.8E+02	4.6E+02 (G)	9.9E+02	4.6E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.2E+00	2.5E+00 (G)	3.6E+00	2.5E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.6E+01	3.7E+01 (G)	7.8E+01 J	3.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	7.1E-01	9.7E-01 (N)	1.5E+00 J	9.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	6.2E+01 (N)	9.7E+01 J	6.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.1E+03 (G)	5.3E+03	2.1E+03	mg/kg	95% UCL - G	(h)
Station CB-04									
	Antimony	mg/kg	3.6E+00	4.8E+00 (N)	7.2E+00	4.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.1E+02	1.8E+02 (G)	3.3E+02	1.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	6.1E+01	7.7E+01 (N)	1.1E+02	7.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	4.0E+00	5.7E+00 (N)	8.9E+00	5.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.7E+02	2.7E+02 (G)	5.7E+02	2.7E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.6E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.1E+02	2.8E+02 (N)	4.1E+02	2.8E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	4.0E+02	1.4E+03 (NP)	2.4E+03	1.4E+03	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	7.3E-01	1.2E+00 (G)	2.2E+00	1.2E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	4.1E+01	7.7E+01 (G)	1.8E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.5E+00 (NP)	5.3E+00	5.3E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	5.5E+01	6.8E+01 (N)	8.5E+01	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	3.1E+03 (T)	8.8E+03	3.1E+03	mg/kg	95% UCL - T	(e)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-06									
	Antimony	mg/kg	1.7E+00	4.7E+00 (NP)	7.8E+00	4.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	9.8E+01	1.4E+02 (N)	2.6E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.1E+01 (N)	6.0E+01	5.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.6E+00	1.7E+01 (G)	3.5E+01	1.7E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.8E+02	5.0E+02 (G)	9.7E+02	5.0E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.9E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.4E+02	1.9E+02 (N)	3.3E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+01	9.4E+01 (N)	1.3E+02 J	9.4E+01	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.3E-01	3.4E-01 (N)	5.6E-01	3.4E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.9E+01	2.8E+01 (G)	4.9E+01	2.8E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.2E+00	4.1E+00 (N)	6.1E+00	4.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.3E+01	7.2E+01 (N)	1.0E+02	7.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	2.1E+03 (N)	3.8E+03 J	2.1E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	3.6E-01	6.5E-01 (G)	1.3E+00 J	6.5E-01	mg/kg	95% UCL - G	(h)
Station CB-07									
	Arsenic	mg/kg	9.1E+01	2.1E+02 (N)	2.3E+02 J	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.2E+01	5.6E+01 (N)	5.7E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	4.9E+00 (N)	5.6E+00	4.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	3.3E+02	7.1E+02 (N)	7.8E+02	7.1E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	8.7E+02 (G)	4.4E+02	4.4E+02	mg/kg	Max	(g)
	Lead	mg/kg	1.5E+02	3.4E+02 (N)	3.8E+02	3.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	6.7E+02 (N)	6.5E+02 J	6.5E+02	mg/kg	Max	(g)
	Mercury	mg/kg	5.6E-01	1.3E+00 (N)	1.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.4E+01	2.2E+01 (N)	2.3E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	9.2E+01 (N)	1.0E+02	9.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.0E+02	6.2E+02 (N)	6.7E+02 J	6.2E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 16/TT-33									
	Benzo(a)anthracene	mg/kg	2.4E-01	3.9E-01 (N)	1.1E-01 J	1.1E-01	mg/kg	Max	(g)
	Benzo(a)pyrene	mg/kg	2.5E-01	3.9E-01 (N)	1.4E-01 J	1.4E-01	mg/kg	Max	(g)
	Benzo(b)fluoranthene	mg/kg	2.3E-01	4.2E-01 (N)	2.6E-01	2.6E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	1.9E-01	3.9E-01 (N)	9.9E-02 J	9.9E-02	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.3E-01	4.0E-01 (N)	6.0E-02 J	6.0E-02	mg/kg	Max	(g)
	Phenanthrene	mg/kg	2.4E-01	3.9E-01 (N)	1.3E-01 J	1.3E-01	mg/kg	Max	(g)
	Antimony	mg/kg	3.4E+00	5.9E+00 (N)	9.1E+00 J	5.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.4E+02	2.4E+02 (N)	2.9E+02 J	2.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.2E+01	6.2E+01 (N)	7.8E+01	6.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.6E+00 (N)	7.4E+00 J	5.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.7E+02	4.2E+03 (G)	2.2E+03 J	2.2E+03	mg/kg	Max	(g)
	Copper	mg/kg	2.4E+02	4.0E+02 (N)	4.9E+02 J	4.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.2E+02	2.0E+02 (N)	2.9E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.9E+02	8.8E+02 (G)	7.8E+02	7.8E+02	mg/kg	Max	(g)
	Mercury	mg/kg	1.9E+00	3.4E+00 (N)	5.6E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.0E+01	1.5E+01 (N)	2.2E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.0E+01	3.1E+01 (N)	4.2E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.8E+02	9.3E+02 (N)	1.1E+03 J	9.3E+02	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	7.4E-01	5.4E+00 (G)	2.9E+00 J	2.9E+00	mg/kg	Max	(g)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 09									
	Benzo(a)anthracene	mg/kg	2.1E-01	4.8E-01 (T)	1.0E+00	4.8E-01	mg/kg	95% UCL - T	(e)
	Benzo(a)pyrene	mg/kg	2.1E-01	5.0E-01 (T)	1.1E+00	5.0E-01	mg/kg	95% UCL - T	(e)
	Benzo(b)fluoranthene	mg/kg	4.0E-01	1.3E+00 (NP)	2.3E+00	1.3E+00	mg/kg	95% UCL - NP	(f)
	Benzo(k)fluoranthene	mg/kg	3.6E-01	1.2E+00 (NP)	2.1E+00	1.2E+00	mg/kg	95% UCL - NP	(f)
	Dibenz(a,h)anthracene	mg/kg	2.1E-01	2.3E-01 (NP)	8.0E-02 J	8.0E-02	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E-01	2.5E-01 (N)	3.7E-01 J	2.5E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	3.1E-01	2.1E+00 (NP)	1.9E+00	1.9E+00	mg/kg	Max	(g)
	Antimony	mg/kg	8.1E-01	1.0E+00 (N)	1.3E+00	1.0E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.9E+01	3.5E+01 (N)	4.9E+01 J	3.5E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	2.1E+01	3.3E+01 (G)	7.4E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (G)	1.2E+00 J	6.8E-01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.5E+01	5.9E+01 (N)	9.2E+01 J	5.9E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.7E+01	6.3E+01 (N)	1.0E+02 J	6.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+01	4.4E+01 (N)	8.7E+01	4.4E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	2.9E+03 (NP)	2.6E+03 J	2.6E+03	mg/kg	Max	(g)
	Mercury	mg/kg	2.6E-01	3.9E-01 (N)	6.8E-01 J	3.9E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	8.0E+00	9.7E+00 (G)	1.3E+01	9.7E+00	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	9.2E-01	1.3E+00 (N)	2.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.1E+01	1.4E+01 (N)	1.9E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+02	2.4E+02 (G)	4.8E+02 J	2.4E+02	mg/kg	95% UCL - G	(h)
Station AM									
	Antimony	mg/kg	2.0E+00	N/A (<4)	2.0E+00 J	2.0E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(a)
	Barium	mg/kg	5.8E+01	N/A (<4)	5.8E+01	5.8E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	3.9E+00	N/A (<4)	3.9E+00	3.9E+00	mg/kg	Max	(a)
	Chromium	mg/kg	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	2.0E+02	N/A (<4)	2.0E+02	2.0E+02	mg/kg	Max	(a)
	Lead	mg/kg	1.5E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(a)
	Mercury	mg/kg	1.9E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.8E+01	N/A (<4)	1.8E+01 J	1.8E+01	mg/kg	Max	(a)
	Thallium	mg/kg	4.4E-01	N/A (<4)	4.4E-01 J	4.4E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	2.7E+01	N/A (<4)	2.7E+01	2.7E+01	mg/kg	Max	(a)
	Zinc	mg/kg	9.4E+02	N/A (<4)	9.4E+02	9.4E+02	mg/kg	Max	(a)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station KF									
	Arsenic	mg/kg	3.8E+01	5.2E+01 (N)	9.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.3E+01	4.1E+01 (N)	5.5E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.6E-01	1.0E+00 (G)	1.1E+00	1.0E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	6.7E+01	8.8E+01 (N)	1.1E+02	8.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.9E+01	1.1E+02 (N)	1.9E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	9.7E+01	1.3E+02 (N)	1.9E+02	1.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.6E+02 (N)	5.0E+02	3.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.1E-01	8.9E-01 (G)	1.6E+00 J	8.9E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	6.7E+00	9.0E+00 (N)	1.3E+01	9.0E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.3E+01 (N)	3.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.8E+02	3.5E+02 (N)	4.6E+02	3.5E+02	mg/kg	95% UCL - N	(d)
Station 08									
	Benzo(a)anthracene	mg/kg	4.8E-01	N/A (<4)	6.8E-01	6.8E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	6.3E-01	N/A (<4)	9.4E-01	9.4E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	1.3E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.0E+00	2.0E+00	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	9.3E-02	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.0E-01	N/A (<4)	6.8E-01	6.8E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.8E-01	N/A (<4)	6.1E-01	6.1E-01	mg/kg	Max	(a)
	Antimony	mg/kg	1.0E+00	N/A (<4)	1.6E+00	1.6E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.9E+01	N/A (<4)	2.9E+01 J	2.9E+01	mg/kg	Max	(a)
	Barium	mg/kg	1.9E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(a)
	Chromium	mg/kg	5.4E+01	N/A (<4)	1.2E+02 J	1.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	7.4E+01	N/A (<4)	1.3E+02 J	1.3E+02	mg/kg	Max	(a)
	Lead	mg/kg	4.3E+01	N/A (<4)	7.1E+01	7.1E+01	mg/kg	Max	(a)
	Manganese	mg/kg	1.6E+02	N/A (<4)	2.3E+02 J	2.3E+02	mg/kg	Max	(a)
	Mercury	mg/kg	4.6E-01	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.0E+01	2.0E+01	mg/kg	Max	(a)
	Thallium	mg/kg	1.4E+00	N/A (<4)	1.7E+00	1.7E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	1.5E+01	N/A (<4)	1.8E+01	1.8E+01	mg/kg	Max	(a)
	Zinc	mg/kg	3.5E+02	N/A (<4)	5.4E+02 J	5.4E+02	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 07/DP									
	Trichloroethene	mg/kg	1.5E-02	2.2E-02 (G)	3.5E-02 J	2.2E-02	mg/kg	95% UCL - G	(h)
	Benzo(a)anthracene	mg/kg	3.8E+00	5.6E+00 (N)	9.6E+00	5.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.8E+00	5.5E+00 (N)	1.0E+01	5.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	6.6E+00	9.5E+00 (N)	1.6E+01 J	9.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.0E+00	9.2E+00 (G)	1.4E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Dibenz(a,h)anthracene	mg/kg	5.5E-01	1.1E+00 (G)	2.0E+00	1.1E+00	mg/kg	95% UCL - G	(h)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E+00	3.9E+00 (G)	6.9E+00	3.9E+00	mg/kg	95% UCL - G	(h)
	Phenanthrene	mg/kg	3.7E+00	6.8E+00 (G)	1.2E+01	6.8E+00	mg/kg	95% UCL - G	(h)
	Aroclor 1260	mg/kg	5.1E-02	6.6E-02 (N)	7.4E-02	6.6E-02	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	1.9E+00	2.3E+00 (N)	3.1E+00	2.3E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.7E+01	8.0E+01 (N)	1.3E+02 J	8.0E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	6.4E+01	8.4E+01 (N)	1.2E+02	8.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.1E+00 (N)	1.0E+01	5.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.8E+02	2.5E+02 (N)	4.4E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	2.3E+02 (N)	3.8E+02 J	2.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.5E+02	3.5E+02 (N)	4.8E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.2E+02	4.2E+02 (N)	6.0E+02 J	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.4E+00	2.8E+00 (G)	5.7E+00 J	2.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.2E+01	2.7E+01 (N)	3.8E+01	2.7E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	2.2E+00 (N)	3.8E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.0E+01	5.2E+01 (N)	7.9E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.3E+02	1.3E+03 (N)	2.5E+03 J	1.3E+03	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station LP									
	Antimony	mg/kg	1.3E+00	1.9E+00 (NP)	5.1E+00 J	1.9E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	7.1E+01	1.5E+02 (G)	4.9E+02 J	1.5E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	3.2E+01	4.1E+01 (N)	6.9E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	2.9E+00 (N)	5.6E+00 J	2.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.4E+01	8.7E+01 (G)	1.3E+02	8.7E+01	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	2.0E+02	4.8E+02 (G)	1.6E+03 J	4.8E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	8.2E+01	1.6E+02 (G)	4.0E+02 J	1.6E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.7E+02	2.1E+02 (N)	3.3E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.6E-01	8.1E-01 (G)	1.4E+00	8.1E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	1.0E+01	1.4E+01 (N)	3.1E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.5E+00	2.0E+00 (G)	2.9E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	1.8E+01	2.3E+01 (N)	4.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.8E+02	1.7E+03 (G)	2.8E+03	1.7E+03	mg/kg	95% UCL - G	(h)
Station AS									
	Antimony	mg/kg	2.5E+00	N/A (<4)	2.9E+00 J	2.9E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(a)
	Barium	mg/kg	1.0E+02	N/A (<4)	1.1E+02	1.1E+02	mg/kg	Max	(a)
	Cadmium	mg/kg	1.2E+01	N/A (<4)	1.3E+01	1.3E+01	mg/kg	Max	(a)
	Chromium	mg/kg	7.5E+02	N/A (<4)	9.2E+02	9.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	5.1E+02	N/A (<4)	5.8E+02	5.8E+02	mg/kg	Max	(a)
	Lead	mg/kg	5.7E+02	N/A (<4)	6.6E+02	6.6E+02	mg/kg	Max	(a)
	Manganese	mg/kg	3.8E+02	N/A (<4)	3.8E+02 J	3.8E+02	mg/kg	Max	(a)
	Mercury	mg/kg	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	mg/kg	Max	(a)
	Nickel	mg/kg	3.7E+01	N/A (<4)	3.9E+01 J	3.9E+01	mg/kg	Max	(a)
	Thallium	mg/kg	1.1E+00	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	6.6E+01	N/A (<4)	7.3E+01	7.3E+01	mg/kg	Max	(a)
	Zinc	mg/kg	2.2E+03	N/A (<4)	2.3E+03	2.3E+03	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 05									
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	2.3E+00 J	2.3E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	3.5E-01	N/A (<4)	2.5E+00 J	2.5E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	3.5E-01	N/A (<4)	3.0E+00 J	3.0E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	2.5E-01	N/A (<4)	1.9E+00 J	1.9E+00	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.7E-01	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Phenanthrene	mg/kg	6.8E-01	N/A (<4)	2.2E+00 J	2.2E+00	mg/kg	Max	(a)
	Antimony	mg/kg	9.4E-01	N/A (<4)	1.8E+00 J	1.8E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	8.3E+00	N/A (<4)	2.5E+01	2.5E+01	mg/kg	Max	(a)
	Barium	mg/kg	3.5E+01	N/A (<4)	4.3E+01	4.3E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	2.2E-01	N/A (<4)	1.6E+00	1.6E+00	mg/kg	Max	(a)
	Chromium	mg/kg	3.4E+01	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Copper	mg/kg	2.5E+01	N/A (<4)	8.0E+01	8.0E+01	mg/kg	Max	(a)
	Lead	mg/kg	2.7E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	4.2E+02	N/A (<4)	9.5E+02	9.5E+02	mg/kg	Max	(a)
	Mercury	mg/kg	9.0E-02	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.0E+01	N/A (<4)	1.1E+01	1.1E+01	mg/kg	Max	(a)
	Thallium	mg/kg	6.1E-01	N/A (<4)	9.7E-01	9.7E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	1.9E+01	N/A (<4)	1.9E+01	1.9E+01	mg/kg	Max	(a)
	Zinc	mg/kg	1.2E+02	N/A (<4)	5.7E+02	5.7E+02	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 03									
	Benzo(a)anthracene	mg/kg	5.7E-01	N/A (<4)	1.3E+00	1.3E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	6.0E-01	N/A (<4)	1.4E+00	1.4E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	3.5E-01	N/A (<4)	6.4E-01	6.4E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	1.7E-01	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.4E-01	N/A (<4)	6.2E-01	6.2E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	5.0E-02	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(a)
	Antimony	mg/kg	8.0E-01	N/A (<4)	1.7E+00 J	1.7E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	3.3E+01	N/A (<4)	8.7E+01	8.7E+01	mg/kg	Max	(a)
	Barium	mg/kg	3.5E+01	N/A (<4)	8.5E+01	8.5E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	1.7E+00	N/A (<4)	5.2E+00	5.2E+00	mg/kg	Max	(a)
	Chromium	mg/kg	7.3E+01	N/A (<4)	2.0E+02 J	2.0E+02	mg/kg	Max	(a)
	Copper	mg/kg	6.2E+01	N/A (<4)	1.7E+02	1.7E+02	mg/kg	Max	(a)
	Lead	mg/kg	1.2E+02	N/A (<4)	3.5E+02 J	3.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	2.1E+02	N/A (<4)	5.0E+02	5.0E+02	mg/kg	Max	(a)
	Mercury	mg/kg	2.6E-01	N/A (<4)	7.1E-01	7.1E-01	mg/kg	Max	(a)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.7E+01 J	2.7E+01	mg/kg	Max	(a)
	Vanadium	mg/kg	2.2E+01	N/A (<4)	4.9E+01	4.9E+01	mg/kg	Max	(a)
	Zinc	mg/kg	5.2E+02	N/A (<4)	1.4E+03 J	1.4E+03	mg/kg	Max	(a)

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TABLE 3-3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 01									
	Benzo(a)anthracene	mg/kg	1.9E-01	2.5E-01 (N)	2.5E-01 J	2.5E-01	mg/kg	Max	(g)
	Benzo(a)pyrene	mg/kg	1.7E-01	2.4E-01 (NP)	2.1E-01 J	2.1E-01	mg/kg	Max	(g)
	Benzo(b)fluoranthene	mg/kg	1.7E-01	2.2E-01 (N)	1.7E-01 J	1.7E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	1.8E-01	2.4E-01 (NP)	2.1E-01 J	2.1E-01	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.8E-01	2.2E-01 (N)	1.2E-01 J	1.2E-01	mg/kg	Max	(g)
	Phenanthrene	mg/kg	3.0E-01	4.6E-01 (N)	5.0E-01 J	4.6E-01	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	4.9E-01	8.8E-01 (N)	9.4E-01 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	4.6E+00	6.2E+00 (N)	6.2E+00	6.2E+00	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.1E+01	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.8E-02	1.7E-01 (N)	1.8E-01	1.7E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.3E+00	1.0E+01 (N)	9.8E+00	9.8E+00	mg/kg	Max	(g)
	Copper	mg/kg	1.2E+01	1.7E+01 (N)	1.7E+01	1.7E+01	mg/kg	Max	(g)
	Lead	mg/kg	1.9E+01	3.6E+01 (N)	4.0E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.2E+01	1.0E+02 (N)	1.0E+02	1.0E+02	mg/kg	Max	(g)
	Nickel	mg/kg	6.4E+00	7.6E+00 (N)	7.2E+00	7.2E+00	mg/kg	Max	(g)
	Thallium	mg/kg	4.0E-01	5.2E-01 (N)	5.4E-01	5.2E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	9.6E+00	1.2E+01 (N)	1.2E+01	1.2E+01	mg/kg	Max	(g)
	Zinc	mg/kg	1.0E+02	1.6E+02 (N)	1.5E+02	1.5E+02	mg/kg	Max	(g)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.2 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.7E+02	2.1E+02 (N)	2.2E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.1E+01	5.6E+01 (N)	6.6E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.3E+00	2.2E+00 (N)	2.7E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.9E+02	2.5E+02 (N)	2.6E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.0E+02	3.0E+02 (N)	3.7E+02	3.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.6E+02	2.2E+02 (N)	2.5E+02	2.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.6E+02	2.5E+02 (N)	3.2E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	4.5E+00 (N)	5.9E+00	4.5E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.1E+01	1.4E+01 (N)	1.6E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.4E+01	3.1E+01 (N)	3.3E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.4E+02	4.9E+02 (N)	6.0E+02 J	4.9E+02	mg/kg	95% UCL - N	(d)
Station 14									
	Benzo(a)anthracene	mg/kg	9.7E-01	N/A (<4)	1.1E+00 J	9.7E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	8.9E-01 J	8.9E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.1E+00 J	1.4E+00	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.1E+00	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(c)
	Phenanthrene	mg/kg	1.5E+00	N/A (<4)	2.6E+00 J	1.5E+00	mg/kg	Mean	(b)
	Antimony	mg/kg	9.1E-01	N/A (<4)	9.9E-01 J	9.1E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	6.1E+01	N/A (<4)	7.3E+01	6.1E+01	mg/kg	Mean	(b)
	Barium	mg/kg	1.6E+01	N/A (<4)	1.8E+01	1.6E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	6.4E-01	N/A (<4)	1.0E+00	6.4E-01	mg/kg	Mean	(b)
	Chromium	mg/kg	1.0E+02	N/A (<4)	2.2E+02	1.0E+02	mg/kg	Mean	(b)
	Copper	mg/kg	5.7E+01	N/A (<4)	6.5E+01	5.7E+01	mg/kg	Mean	(b)
	Lead	mg/kg	6.8E+01	N/A (<4)	1.3E+02 J	6.8E+01	mg/kg	Mean	(b)
	Manganese	mg/kg	1.3E+02	N/A (<4)	1.7E+02 J	1.3E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	5.9E-01	N/A (<4)	1.4E+00 J	5.9E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	7.3E+00	N/A (<4)	1.0E+01	7.3E+00	mg/kg	Mean	(b)
	Thallium	mg/kg	4.9E-01	N/A (<4)	8.1E-01	4.9E-01	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.1E+01	N/A (<4)	1.3E+01	1.1E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	2.2E+02	N/A (<4)	2.7E+02	2.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 22/TT-22									
	Tetrachloroethene	mg/kg	1.1E+00	2.8E+00 (N)	3.2E+00	2.8E+00	mg/kg	95% UCL - N	(d)
	Trichloroethene	mg/kg	2.6E-01	7.0E-01 (N)	8.0E-01	7.0E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)anthracene	mg/kg	3.4E-01	N/A (<4)	3.0E-01	3.0E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	3.2E-01	N/A (<4)	2.0E-01	2.0E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	3.9E-01	4.9E-01 (NP)	4.4E-01	3.9E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	4.2E-01	N/A (<4)	5.4E-01 J	4.2E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	2.5E-01	N/A (<4)	4.4E-02 J	4.4E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.1E-01	N/A (<4)	2.2E-01	2.2E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	4.0E-01	N/A (<4)	4.9E-01	4.0E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	3.2E-02	N/A (<4)	2.9E-02	2.9E-02	mg/kg	Max	(c)
	Antimony	mg/kg	7.0E+01	9.2E+02 (G)	3.3E+02 J	7.0E+01	mg/kg	Mean	(b)
	Arsenic	mg/kg	2.1E+01	7.7E+01 (G)	8.7E+01 J	7.7E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	4.1E+01	4.9E+01 (NP)	5.1E+01 J	4.9E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	1.7E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	2.5E+01	6.5E+01 (T)	8.5E+01 J	6.5E+01	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	2.3E+01	2.9E+01 (N)	3.8E+01 J	2.9E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	6.8E+03	3.3E+04 (T)	4.1E+04 J	3.3E+04	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	7.1E+01	1.2E+02 (G)	1.9E+02 J	1.2E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E-01	4.6E-01 (G)	5.0E-01	4.6E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	7.8E+00	1.1E+01 (G)	1.8E+01	1.1E+01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	3.1E+01	4.1E+01 (N)	5.0E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.0E+01	9.6E+01 (N)	1.2E+02 J	9.6E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WH									
	Trichloroethene	mg/kg	5.3E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(c)
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	5.6E-01 J	4.3E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	9.0E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	6.9E-01	N/A (<4)	7.2E-01 J	6.9E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	3.1E-01	N/A (<4)	3.2E-01 J	3.1E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	5.2E-01	N/A (<4)	7.4E-01 J	5.2E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.4E-01	N/A (<4)	5.7E-01 J	4.4E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	4.1E-02	N/A (<4)	5.8E-02	4.1E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	2.6E+01	3.5E+01 (G)	6.8E+01 J	3.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.7E+02	1.9E+03 (T)	3.2E+03	1.9E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	8.1E+01	9.3E+01 (N)	1.3E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	6.4E+00	1.1E+01 (G)	1.5E+01 J	1.1E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.9E+02	1.2E+03 (G)	2.1E+03	1.2E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.0E+02	1.2E+03 (T)	2.1E+03	1.2E+03	mg/kg	95% UCL - T	(e)
	Lead	mg/kg	1.5E+03	1.8E+03 (N)	2.5E+03	1.8E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	5.1E+02 (G)	7.8E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.0E+00	2.7E+01 (NP)	2.8E+01	2.7E+01	mg/kg	95% UCL - NP	(f)
	Nickel	mg/kg	2.4E+01	4.1E+01 (NP)	4.4E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	5.6E-01	7.7E-01 (N)	1.5E+00	7.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	7.8E+01	9.8E+01 (N)	1.6E+02	9.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.3E+03 (G)	3.2E+03	2.3E+03	mg/kg	95% UCL - G	(h)
	Chromium VI	mg/kg	6.4E-01	1.5E+00 (G)	2.8E+00 J	1.5E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WG									
	Trichloroethene	mg/kg	4.2E-02	N/A (<4)	4.2E-02 J	4.2E-02	mg/kg	Max	(c)
	Benzo(a)anthracene	mg/kg	1.3E-01	N/A (<4)	1.3E-01 J	1.3E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	2.9E-01	N/A (<4)	2.9E-01 J	2.9E-01	mg/kg	Max	(c)
	Benzo(k)fluoranthene	mg/kg	2.0E-01	N/A (<4)	2.0E-01 J	2.0E-01	mg/kg	Max	(c)
	Dibenz(a,h)anthracene	mg/kg	4.6E-02	N/A (<4)	4.6E-02 J	4.6E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.4E-01	N/A (<4)	1.4E-01 J	1.4E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(c)
	Aroclor 1260	mg/kg	1.1E-02	N/A (<4)	1.1E-02	1.1E-02	mg/kg	Max	(c)
	Antimony	mg/kg	6.0E+00	9.2E+00 (G)	2.5E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	1.4E+02	2.6E+02 (T)	1.5E+03 J	2.6E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.4E+01 (N)	1.8E+02	9.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	6.4E+00 (N)	1.2E+01	6.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+02	9.3E+02 (G)	2.6E+03	9.3E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.8E+02	6.3E+02 (N)	1.3E+03	6.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	4.3E+02	5.2E+02 (N)	8.1E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.0E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.4E+00	3.0E+00 (T)	1.2E+01 J	3.0E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.5E+01 (N)	7.9E+01	3.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	3.6E-01	4.4E-01 (N)	7.0E-01 J	4.4E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.4E+01	6.5E+01 (N)	1.0E+02	6.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	8.7E+02	1.1E+03 (N)	2.1E+03	1.1E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WS/WSS									
	Antimony	mg/kg	4.0E+00	4.9E+00 (N)	7.2E+00 J	4.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.7E+02	2.3E+02 (N)	3.4E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.2E+02	1.4E+02 (N)	2.0E+02	1.4E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.1E+00	1.1E+01 (N)	1.7E+01	1.1E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.0E+02	7.3E+02 (N)	1.3E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.1E+02	4.1E+02 (N)	6.9E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.9E+02	3.7E+02 (N)	4.9E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.0E+03	1.2E+03 (N)	1.4E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.4E+00 (N)	1.8E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	3.0E+01	3.6E+01 (N)	4.6E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.6E-01	1.1E+00 (N)	2.2E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	3.7E+01	4.5E+01 (N)	5.6E+01	4.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.5E+03	2.0E+03 (N)	3.4E+03	2.0E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	6.6E-01	9.5E-01 (N)	1.7E+00 J	9.5E-01	mg/kg	95% UCL - N	(d)
Station TT-30									
	Arsenic	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(c)
	Barium	mg/kg	3.3E+01	N/A (<4)	3.3E+01 J	3.3E+01	mg/kg	Max	(c)
	Cadmium	mg/kg	7.1E+00	N/A (<4)	7.1E+00 J	7.1E+00	mg/kg	Max	(c)
	Chromium	mg/kg	5.3E+03	N/A (<4)	5.3E+03 J	5.3E+03	mg/kg	Max	(c)
	Copper	mg/kg	3.8E+03	N/A (<4)	3.8E+03 J	3.8E+03	mg/kg	Max	(c)
	Lead	mg/kg	4.3E+02	N/A (<4)	4.3E+02 J	4.3E+02	mg/kg	Max	(c)
	Manganese	mg/kg	2.1E+02	N/A (<4)	2.1E+02 J	2.1E+02	mg/kg	Max	(c)
	Mercury	mg/kg	8.9E+01	N/A (<4)	8.9E+01 J	8.9E+01	mg/kg	Max	(c)
	Nickel	mg/kg	8.0E+00	N/A (<4)	8.0E+00	8.0E+00	mg/kg	Max	(c)
	Thallium	mg/kg	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	mg/kg	Max	(c)
	Vanadium	mg/kg	2.1E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(c)
	Zinc	mg/kg	1.2E+03	N/A (<4)	1.2E+03	1.2E+03	mg/kg	Max	(c)
	Chromium VI	mg/kg	6.9E+00	N/A (<4)	6.9E+00 J	6.9E+00	mg/kg	Max	(c)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-01									
	Antimony	mg/kg	1.2E+00	2.0E+00 (G)	4.0E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	4.1E+01	5.8E+01 (N)	9.9E+01 J	5.8E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.9E+01 (N)	1.1E+02	5.9E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	9.3E+00 (G)	1.6E+01 J	9.3E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.2E+02	3.3E+02 (N)	5.8E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.9E+02	7.5E+02 (G)	1.1E+03 J	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	3.2E+02	4.4E+02 (N)	6.5E+02 J	4.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.4E+02	6.9E+02 (G)	1.3E+03 J	6.9E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E+00	2.9E+00 (G)	4.8E+00 J	2.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.2E+00	2.0E+01 (NP)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	1.0E+00	2.5E+00 (T)	3.1E+00	2.5E+00	mg/kg	95% UCL - T	(e)
	Vanadium	mg/kg	5.4E+01	7.9E+01 (G)	1.1E+02	7.9E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	4.2E+02	6.4E+02 (N)	1.2E+03	6.4E+02	mg/kg	95% UCL - N	(d)
Station CB-02									
	Antimony	mg/kg	1.5E+00	1.8E+00 (N)	2.0E+00 J	1.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.7E+01	4.1E+01 (G)	5.6E+01 J	4.1E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	7.9E+01	1.7E+02 (T)	3.9E+02	1.7E+02	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	3.1E+00	3.8E+00 (N)	5.8E+00 J	3.8E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.1E+02	1.4E+02 (N)	2.5E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.5E+01	9.8E+01 (G)	1.7E+02	9.8E+01	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	1.2E+02	2.4E+02 (NP)	3.4E+02 J	2.4E+02	mg/kg	95% UCL - NP	(f)
	Manganese	mg/kg	5.6E+01	7.2E+01 (G)	1.1E+02 J	7.2E+01	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.4E-01	3.3E-01 (G)	5.8E-01	3.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	8.3E+00	1.0E+01 (N)	1.3E+01 J	1.0E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.7E+01	3.2E+01 (N)	4.6E+01	3.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.5E+02	3.1E+02 (N)	4.5E+02 J	3.1E+02	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-03									
	Antimony	mg/kg	1.5E+00	6.8E+00 (NP)	4.8E+00 J	1.5E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	2.7E+02	5.9E+02 (G)	1.4E+03	5.9E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	5.2E+01	6.7E+01 (N)	9.6E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.4E+00	1.3E+01 (G)	2.3E+01 J	1.3E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.6E+02	1.3E+03 (NP)	7.7E+02	4.6E+02	mg/kg	Mean	(b)
	Copper	mg/kg	2.7E+02	3.8E+02 (N)	6.7E+02 J	3.8E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.0E+02	2.7E+02 (N)	4.4E+02 J	2.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.8E+02	4.6E+02 (G)	9.9E+02	4.6E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.2E+00	2.5E+00 (G)	3.6E+00	2.5E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.6E+01	3.7E+01 (G)	7.8E+01 J	3.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	7.1E-01	9.7E-01 (N)	1.5E+00 J	9.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	6.2E+01 (N)	9.7E+01 J	6.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.1E+03 (G)	5.3E+03	2.1E+03	mg/kg	95% UCL - G	(h)
Station CB-04									
	Antimony	mg/kg	3.6E+00	4.8E+00 (N)	7.2E+00	4.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.1E+02	1.8E+02 (G)	3.3E+02	1.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	6.1E+01	7.7E+01 (N)	1.1E+02	7.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	4.0E+00	5.7E+00 (N)	8.9E+00	5.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.7E+02	2.7E+02 (G)	5.7E+02	2.7E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.6E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.1E+02	2.8E+02 (N)	4.1E+02	2.8E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	4.0E+02	1.4E+03 (NP)	2.4E+03	1.4E+03	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	7.3E-01	1.2E+00 (G)	2.2E+00	1.2E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	4.1E+01	7.7E+01 (G)	1.8E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.5E+00 (NP)	5.3E+00	1.1E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	5.5E+01	6.8E+01 (N)	8.5E+01	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	3.1E+03 (T)	8.8E+03	3.1E+03	mg/kg	95% UCL - T	(e)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-06									
	Antimony	mg/kg	1.7E+00	4.7E+00 (NP)	7.8E+00	4.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	9.8E+01	1.4E+02 (N)	2.6E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.1E+01 (N)	6.0E+01	5.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.6E+00	1.7E+01 (G)	3.5E+01	1.7E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.8E+02	5.0E+02 (G)	9.7E+02	5.0E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.9E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.4E+02	1.9E+02 (N)	3.3E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+01	9.4E+01 (N)	1.3E+02 J	9.4E+01	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.3E-01	3.4E-01 (N)	5.6E-01	3.4E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.9E+01	2.8E+01 (G)	4.9E+01	2.8E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.2E+00	4.1E+00 (N)	6.1E+00	4.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.3E+01	7.2E+01 (N)	1.0E+02	7.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	2.1E+03 (N)	3.8E+03 J	2.1E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	3.6E-01	6.5E-01 (G)	1.3E+00 J	6.5E-01	mg/kg	95% UCL - G	(h)
Station CB-07									
	Arsenic	mg/kg	9.1E+01	2.1E+02 (N)	2.3E+02 J	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.2E+01	5.6E+01 (N)	5.7E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	4.9E+00 (N)	5.6E+00	4.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	3.3E+02	7.1E+02 (N)	7.8E+02	7.1E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	8.7E+02 (G)	4.4E+02	1.6E+02	mg/kg	Mean	(b)
	Lead	mg/kg	1.5E+02	3.4E+02 (N)	3.8E+02	3.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	6.7E+02 (N)	6.5E+02 J	3.3E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	5.6E-01	1.3E+00 (N)	1.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.4E+01	2.2E+01 (N)	2.3E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	9.2E+01 (N)	1.0E+02	9.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.0E+02	6.2E+02 (N)	6.7E+02 J	6.2E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 16/TT-33									
	Benzo(a)anthracene	mg/kg	2.4E-01	3.9E-01 (N)	1.1E-01 J	1.1E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	2.5E-01	3.9E-01 (N)	1.4E-01 J	1.4E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	2.3E-01	4.2E-01 (N)	2.6E-01	2.3E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.9E-01	3.9E-01 (N)	9.9E-02 J	9.9E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.3E-01	4.0E-01 (N)	6.0E-02 J	6.0E-02	mg/kg	Max	(c)
	Phenanthrene	mg/kg	2.4E-01	3.9E-01 (N)	1.3E-01 J	1.3E-01	mg/kg	Max	(c)
	Antimony	mg/kg	3.4E+00	5.9E+00 (N)	9.1E+00 J	5.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.4E+02	2.4E+02 (N)	2.9E+02 J	2.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.2E+01	6.2E+01 (N)	7.8E+01	6.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.6E+00 (N)	7.4E+00 J	5.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.7E+02	4.2E+03 (G)	2.2E+03 J	5.7E+02	mg/kg	Mean	(b)
	Copper	mg/kg	2.4E+02	4.0E+02 (N)	4.9E+02 J	4.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.2E+02	2.0E+02 (N)	2.9E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.9E+02	8.8E+02 (G)	7.8E+02	3.9E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	1.9E+00	3.4E+00 (N)	5.6E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.0E+01	1.5E+01 (N)	2.2E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.0E+01	3.1E+01 (N)	4.2E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.8E+02	9.3E+02 (N)	1.1E+03 J	9.3E+02	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	7.4E-01	5.4E+00 (G)	2.9E+00 J	7.4E-01	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 09									
	Benzo(a)anthracene	mg/kg	2.1E-01	4.8E-01 (T)	1.0E+00	4.8E-01	mg/kg	95% UCL - T	(e)
	Benzo(a)pyrene	mg/kg	2.1E-01	5.0E-01 (T)	1.1E+00	5.0E-01	mg/kg	95% UCL - T	(e)
	Benzo(b)fluoranthene	mg/kg	4.0E-01	1.3E+00 (NP)	2.3E+00	1.3E+00	mg/kg	95% UCL - NP	(f)
	Benzo(k)fluoranthene	mg/kg	3.6E-01	1.2E+00 (NP)	2.1E+00	1.2E+00	mg/kg	95% UCL - NP	(f)
	Dibenz(a,h)anthracene	mg/kg	2.1E-01	2.3E-01 (NP)	8.0E-02 J	8.0E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E-01	2.5E-01 (N)	3.7E-01 J	2.5E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	3.1E-01	2.1E+00 (NP)	1.9E+00	3.1E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	8.1E-01	1.0E+00 (N)	1.3E+00	1.0E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.9E+01	3.5E+01 (N)	4.9E+01 J	3.5E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	2.1E+01	3.3E+01 (G)	7.4E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (G)	1.2E+00 J	6.8E-01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.5E+01	5.9E+01 (N)	9.2E+01 J	5.9E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.7E+01	6.3E+01 (N)	1.0E+02 J	6.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+01	4.4E+01 (N)	8.7E+01	4.4E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	2.9E+03 (NP)	2.6E+03 J	3.6E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	2.6E-01	3.9E-01 (N)	6.8E-01 J	3.9E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	8.0E+00	9.7E+00 (G)	1.3E+01	9.7E+00	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	9.2E-01	1.3E+00 (N)	2.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.1E+01	1.4E+01 (N)	1.9E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+02	2.4E+02 (G)	4.8E+02 J	2.4E+02	mg/kg	95% UCL - G	(h)
Station AM									
	Antimony	mg/kg	2.0E+00	N/A (<4)	2.0E+00 J	2.0E+00	mg/kg	Max	(c)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(c)
	Barium	mg/kg	5.8E+01	N/A (<4)	5.8E+01	5.8E+01	mg/kg	Max	(c)
	Cadmium	mg/kg	3.9E+00	N/A (<4)	3.9E+00	3.9E+00	mg/kg	Max	(c)
	Chromium	mg/kg	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	mg/kg	Max	(c)
	Copper	mg/kg	2.0E+02	N/A (<4)	2.0E+02	2.0E+02	mg/kg	Max	(c)
	Lead	mg/kg	1.5E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(c)
	Manganese	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(c)
	Mercury	mg/kg	1.9E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(c)
	Nickel	mg/kg	1.8E+01	N/A (<4)	1.8E+01 J	1.8E+01	mg/kg	Max	(c)
	Thallium	mg/kg	4.4E-01	N/A (<4)	4.4E-01 J	4.4E-01	mg/kg	Max	(c)
	Vanadium	mg/kg	2.7E+01	N/A (<4)	2.7E+01	2.7E+01	mg/kg	Max	(c)
	Zinc	mg/kg	9.4E+02	N/A (<4)	9.4E+02	9.4E+02	mg/kg	Max	(c)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station KF									
	Arsenic	mg/kg	3.8E+01	5.2E+01 (N)	9.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.3E+01	4.1E+01 (N)	5.5E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.6E-01	1.0E+00 (G)	1.1E+00	1.0E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	6.7E+01	8.8E+01 (N)	1.1E+02	8.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.9E+01	1.1E+02 (N)	1.9E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	9.7E+01	1.3E+02 (N)	1.9E+02	1.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.6E+02 (N)	5.0E+02	3.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.1E-01	8.9E-01 (G)	1.6E+00 J	8.9E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	6.7E+00	9.0E+00 (N)	1.3E+01	9.0E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.3E+01 (N)	3.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.8E+02	3.5E+02 (N)	4.6E+02	3.5E+02	mg/kg	95% UCL - N	(d)
Station 08									
	Benzo(a)anthracene	mg/kg	4.8E-01	N/A (<4)	6.8E-01	4.8E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	6.3E-01	N/A (<4)	9.4E-01	6.3E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	1.3E+00	N/A (<4)	1.9E+00	1.3E+00	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.0E+00	1.4E+00	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	9.3E-02	N/A (<4)	1.6E-01 J	9.3E-02	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.0E-01	N/A (<4)	6.8E-01	4.0E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.8E-01	N/A (<4)	6.1E-01	4.8E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	1.0E+00	N/A (<4)	1.6E+00	1.0E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	1.9E+01	N/A (<4)	2.9E+01 J	1.9E+01	mg/kg	Mean	(b)
	Barium	mg/kg	1.9E+01	N/A (<4)	2.1E+01	1.9E+01	mg/kg	Mean	(b)
	Chromium	mg/kg	5.4E+01	N/A (<4)	1.2E+02 J	5.4E+01	mg/kg	Mean	(b)
	Copper	mg/kg	7.4E+01	N/A (<4)	1.3E+02 J	7.4E+01	mg/kg	Mean	(b)
	Lead	mg/kg	4.3E+01	N/A (<4)	7.1E+01	4.3E+01	mg/kg	Mean	(b)
	Manganese	mg/kg	1.6E+02	N/A (<4)	2.3E+02 J	1.6E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	4.6E-01	N/A (<4)	1.0E+00 J	4.6E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.0E+01	1.2E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	1.4E+00	N/A (<4)	1.7E+00	1.4E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.5E+01	N/A (<4)	1.8E+01	1.5E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	3.5E+02	N/A (<4)	5.4E+02 J	3.5E+02	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 07/DP									
	Trichloroethene	mg/kg	1.5E-02	2.2E-02 (G)	3.5E-02 J	2.2E-02	mg/kg	95% UCL - G	(h)
	Benzo(a)anthracene	mg/kg	3.8E+00	5.6E+00 (N)	9.6E+00	5.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.8E+00	5.5E+00 (N)	1.0E+01	5.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	6.6E+00	9.5E+00 (N)	1.6E+01 J	9.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.0E+00	9.2E+00 (G)	1.4E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Dibenz(a,h)anthracene	mg/kg	5.5E-01	1.1E+00 (G)	2.0E+00	1.1E+00	mg/kg	95% UCL - G	(h)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E+00	3.9E+00 (G)	6.9E+00	3.9E+00	mg/kg	95% UCL - G	(h)
	Phenanthrene	mg/kg	3.7E+00	6.8E+00 (G)	1.2E+01	6.8E+00	mg/kg	95% UCL - G	(h)
	Aroclor 1260	mg/kg	5.1E-02	6.6E-02 (N)	7.4E-02	6.6E-02	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	1.9E+00	2.3E+00 (N)	3.1E+00	2.3E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.7E+01	8.0E+01 (N)	1.3E+02 J	8.0E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	6.4E+01	8.4E+01 (N)	1.2E+02	8.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.1E+00 (N)	1.0E+01	5.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.8E+02	2.5E+02 (N)	4.4E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	2.3E+02 (N)	3.8E+02 J	2.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.5E+02	3.5E+02 (N)	4.8E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.2E+02	4.2E+02 (N)	6.0E+02 J	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.4E+00	2.8E+00 (G)	5.7E+00 J	2.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.2E+01	2.7E+01 (N)	3.8E+01	2.7E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	2.2E+00 (N)	3.8E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.0E+01	5.2E+01 (N)	7.9E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.3E+02	1.3E+03 (N)	2.5E+03 J	1.3E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station LP									
	Antimony	mg/kg	1.3E+00	1.9E+00 (NP)	5.1E+00 J	1.9E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	7.1E+01	1.5E+02 (G)	4.9E+02 J	1.5E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	3.2E+01	4.1E+01 (N)	6.9E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	2.9E+00 (N)	5.6E+00 J	2.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.4E+01	8.7E+01 (G)	1.3E+02	8.7E+01	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	2.0E+02	4.8E+02 (G)	1.6E+03 J	4.8E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	8.2E+01	1.6E+02 (G)	4.0E+02 J	1.6E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.7E+02	2.1E+02 (N)	3.3E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.6E-01	8.1E-01 (G)	1.4E+00	8.1E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	1.0E+01	1.4E+01 (N)	3.1E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.5E+00	2.0E+00 (G)	2.9E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	1.8E+01	2.3E+01 (N)	4.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.8E+02	1.7E+03 (G)	2.8E+03	1.7E+03	mg/kg	95% UCL - G	(h)
Station AS									
	Antimony	mg/kg	2.5E+00	N/A (<4)	2.9E+00 J	2.5E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Mean	(b)
	Barium	mg/kg	1.0E+02	N/A (<4)	1.1E+02	1.0E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.2E+01	N/A (<4)	1.3E+01	1.2E+01	mg/kg	Mean	(b)
	Chromium	mg/kg	7.5E+02	N/A (<4)	9.2E+02	7.5E+02	mg/kg	Mean	(b)
	Copper	mg/kg	5.1E+02	N/A (<4)	5.8E+02	5.1E+02	mg/kg	Mean	(b)
	Lead	mg/kg	5.7E+02	N/A (<4)	6.6E+02	5.7E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	3.8E+02	N/A (<4)	3.8E+02 J	3.8E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	mg/kg	Mean	(b)
	Nickel	mg/kg	3.7E+01	N/A (<4)	3.9E+01 J	3.7E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	1.1E+00	N/A (<4)	1.2E+00 J	1.1E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	6.6E+01	N/A (<4)	7.3E+01	6.6E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	2.2E+03	N/A (<4)	2.3E+03	2.2E+03	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 05									
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	2.3E+00 J	4.3E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	3.5E-01	N/A (<4)	2.5E+00 J	3.5E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	3.5E-01	N/A (<4)	3.0E+00 J	3.5E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	2.5E-01	N/A (<4)	1.9E+00 J	2.5E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.7E-01	N/A (<4)	1.2E+00 J	1.7E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	6.8E-01	N/A (<4)	2.2E+00 J	6.8E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	9.4E-01	N/A (<4)	1.8E+00 J	9.4E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	8.3E+00	N/A (<4)	2.5E+01	8.3E+00	mg/kg	Mean	(b)
	Barium	mg/kg	3.5E+01	N/A (<4)	4.3E+01	3.5E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	2.2E-01	N/A (<4)	1.6E+00	2.2E-01	mg/kg	Mean	(b)
	Chromium	mg/kg	3.4E+01	N/A (<4)	1.5E+02	3.4E+01	mg/kg	Mean	(b)
	Copper	mg/kg	2.5E+01	N/A (<4)	8.0E+01	2.5E+01	mg/kg	Mean	(b)
	Lead	mg/kg	2.7E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(c)
	Manganese	mg/kg	4.2E+02	N/A (<4)	9.5E+02	4.2E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	9.0E-02	N/A (<4)	1.2E+00 J	9.0E-02	mg/kg	Mean	(b)
	Nickel	mg/kg	1.0E+01	N/A (<4)	1.1E+01	1.0E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	6.1E-01	N/A (<4)	9.7E-01	6.1E-01	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.9E+01	N/A (<4)	1.9E+01	1.9E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	1.2E+02	N/A (<4)	5.7E+02	1.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 03									
	Benzo(a)anthracene	mg/kg	5.7E-01	N/A (<4)	1.3E+00	5.7E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	4.7E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	6.0E-01	N/A (<4)	1.4E+00	6.0E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	3.5E-01	N/A (<4)	6.4E-01	3.5E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	1.7E-01	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.4E-01	N/A (<4)	6.2E-01	3.4E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	4.7E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	5.0E-02	N/A (<4)	1.1E-01	5.0E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	8.0E-01	N/A (<4)	1.7E+00 J	8.0E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	3.3E+01	N/A (<4)	8.7E+01	3.3E+01	mg/kg	Mean	(b)
	Barium	mg/kg	3.5E+01	N/A (<4)	8.5E+01	3.5E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.7E+00	N/A (<4)	5.2E+00	1.7E+00	mg/kg	Mean	(b)
	Chromium	mg/kg	7.3E+01	N/A (<4)	2.0E+02 J	7.3E+01	mg/kg	Mean	(b)
	Copper	mg/kg	6.2E+01	N/A (<4)	1.7E+02	6.2E+01	mg/kg	Mean	(b)
	Lead	mg/kg	1.2E+02	N/A (<4)	3.5E+02 J	1.2E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	2.1E+02	N/A (<4)	5.0E+02	2.1E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	2.6E-01	N/A (<4)	7.1E-01	2.6E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.7E+01 J	1.2E+01	mg/kg	Mean	(b)
	Vanadium	mg/kg	2.2E+01	N/A (<4)	4.9E+01	2.2E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	5.2E+02	N/A (<4)	1.4E+03 J	5.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.2.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 01									
	Benzo(a)anthracene	mg/kg	1.9E-01	2.5E-01 (N)	2.5E-01 J	1.9E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.7E-01	2.4E-01 (NP)	2.1E-01 J	1.7E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	1.7E-01	2.2E-01 (N)	1.7E-01 J	1.7E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.8E-01	2.4E-01 (NP)	2.1E-01 J	1.8E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.8E-01	2.2E-01 (N)	1.2E-01 J	1.2E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	3.0E-01	4.6E-01 (N)	5.0E-01 J	4.6E-01	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	4.9E-01	8.8E-01 (N)	9.4E-01 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	4.6E+00	6.2E+00 (N)	6.2E+00	6.2E+00	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.1E+01	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.8E-02	1.7E-01 (N)	1.8E-01	1.7E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.3E+00	1.0E+01 (N)	9.8E+00	8.3E+00	mg/kg	Mean	(b)
	Copper	mg/kg	1.2E+01	1.7E+01 (N)	1.7E+01	1.2E+01	mg/kg	Mean	(b)
	Lead	mg/kg	1.9E+01	3.6E+01 (N)	4.0E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.2E+01	1.0E+02 (N)	1.0E+02	8.2E+01	mg/kg	Mean	(b)
	Nickel	mg/kg	6.4E+00	7.6E+00 (N)	7.2E+00	6.4E+00	mg/kg	Mean	(b)
	Thallium	mg/kg	4.0E-01	5.2E-01 (N)	5.4E-01	5.2E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	9.6E+00	1.2E+01 (N)	1.2E+01	9.6E+00	mg/kg	Mean	(b)
	Zinc	mg/kg	1.0E+02	1.6E+02 (N)	1.5E+02	1.0E+02	mg/kg	Mean	(b)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.2 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.7E+02	2.1E+02 (N)	2.2E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.1E+01	5.6E+01 (N)	6.6E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.3E+00	2.2E+00 (N)	2.7E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.9E+02	2.5E+02 (N)	2.6E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.0E+02	3.0E+02 (N)	3.7E+02	3.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.6E+02	2.2E+02 (N)	2.5E+02	2.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.6E+02	2.5E+02 (N)	3.2E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	4.5E+00 (N)	5.9E+00	4.5E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.1E+01	1.4E+01 (N)	1.6E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.4E+01	3.1E+01 (N)	3.3E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.4E+02	4.9E+02 (N)	6.0E+02 J	4.9E+02	mg/kg	95% UCL - N	(d)
Station 14									
	Benzo(a)anthracene	mg/kg	9.7E-01	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	8.9E-01 J	8.9E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.1E+00 J	2.1E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	1.1E+00	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(a)
	Phenanthrene	mg/kg	1.5E+00	N/A (<4)	2.6E+00 J	2.6E+00	mg/kg	Max	(a)
	Antimony	mg/kg	9.1E-01	N/A (<4)	9.9E-01 J	9.9E-01	mg/kg	Max	(a)
	Arsenic	mg/kg	6.1E+01	N/A (<4)	7.3E+01	7.3E+01	mg/kg	Max	(a)
	Barium	mg/kg	1.6E+01	N/A (<4)	1.8E+01	1.8E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	6.4E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Chromium	mg/kg	1.0E+02	N/A (<4)	2.2E+02	2.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	5.7E+01	N/A (<4)	6.5E+01	6.5E+01	mg/kg	Max	(a)
	Lead	mg/kg	6.8E+01	N/A (<4)	1.3E+02 J	1.3E+02	mg/kg	Max	(a)
	Manganese	mg/kg	1.3E+02	N/A (<4)	1.7E+02 J	1.7E+02	mg/kg	Max	(a)
	Mercury	mg/kg	5.9E-01	N/A (<4)	1.4E+00 J	1.4E+00	mg/kg	Max	(a)
	Nickel	mg/kg	7.3E+00	N/A (<4)	1.0E+01	1.0E+01	mg/kg	Max	(a)
	Thallium	mg/kg	4.9E-01	N/A (<4)	8.1E-01	8.1E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	1.1E+01	N/A (<4)	1.3E+01	1.3E+01	mg/kg	Max	(a)
	Zinc	mg/kg	2.2E+02	N/A (<4)	2.7E+02	2.7E+02	mg/kg	Max	(a)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 22/TT-22									
	Tetrachloroethene	mg/kg	1.1E+00	2.8E+00 (N)	3.2E+00	2.8E+00	mg/kg	95% UCL - N	(d)
	Trichloroethene	mg/kg	2.6E-01	7.0E-01 (N)	8.0E-01	7.0E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)anthracene	mg/kg	3.4E-01	N/A (<4)	3.0E-01	3.0E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	3.2E-01	N/A (<4)	2.0E-01	2.0E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	3.9E-01	4.9E-01 (NP)	4.4E-01	4.4E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	4.2E-01	N/A (<4)	5.4E-01 J	5.4E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	2.5E-01	N/A (<4)	4.4E-02 J	4.4E-02	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.1E-01	N/A (<4)	2.2E-01	2.2E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.0E-01	N/A (<4)	4.9E-01	4.9E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	3.2E-02	N/A (<4)	2.9E-02	2.9E-02	mg/kg	Max	(a)
	Antimony	mg/kg	7.0E+01	9.2E+02 (G)	3.3E+02 J	3.3E+02	mg/kg	Max	(g)
	Arsenic	mg/kg	2.1E+01	7.7E+01 (G)	8.7E+01 J	7.7E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	4.1E+01	4.9E+01 (NP)	5.1E+01 J	4.9E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	1.7E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	2.5E+01	6.5E+01 (T)	8.5E+01 J	6.5E+01	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	2.3E+01	2.9E+01 (N)	3.8E+01 J	2.9E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	6.8E+03	3.3E+04 (T)	4.1E+04 J	3.3E+04	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	7.1E+01	1.2E+02 (G)	1.9E+02 J	1.2E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E-01	4.6E-01 (G)	5.0E-01	4.6E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	7.8E+00	1.1E+01 (G)	1.8E+01	1.1E+01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	3.1E+01	4.1E+01 (N)	5.0E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.0E+01	9.6E+01 (N)	1.2E+02 J	9.6E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 13/TT-27									
	Trichloroethene	mg/kg	2.2E-02	N/A (<4)	3.7E-02 J	3.7E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	8.3E-01	1.3E+00 (N)	1.7E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	9.1E-01	1.3E+00 (N)	1.7E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	1.7E+00	2.6E+00 (N)	3.6E+00 J	2.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	1.3E+00	2.3E+00 (N)	3.4E+00 J	2.3E+00	mg/kg	95% UCL - N	(d)
	Dibenz(a,h)anthracene	mg/kg	2.2E-01	3.1E-01 (N)	3.3E-01 J	3.1E-01	mg/kg	95% UCL - N	(d)
	Indeno(1,2,3-cd)pyrene	mg/kg	6.4E-01	8.8E-01 (N)	1.0E+00	8.8E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	9.5E-01	1.7E+00 (N)	2.7E+00	1.7E+00	mg/kg	95% UCL - N	(d)
	Aroclor 1254	mg/kg	1.6E-02	N/A (<4)	4.5E-02	4.5E-02	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	1.6E-01	3.3E-01 (N)	3.1E-01 J	3.1E-01	mg/kg	Max	(g)
	Antimony	mg/kg	1.3E+01	9.2E+01 (G)	6.1E+01 J	6.1E+01	mg/kg	Max	(g)
	Arsenic	mg/kg	8.8E+02	3.6E+03 (G)	4.2E+03 J	3.6E+03	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	1.6E+02	2.4E+02 (G)	3.9E+02	2.4E+02	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	6.8E+00	9.4E+00 (N)	1.4E+01 J	9.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	4.0E+02	5.6E+02 (N)	7.3E+02 J	5.6E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.4E+02	1.6E+03 (G)	2.3E+03 J	1.6E+03	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	7.0E+02	9.5E+02 (N)	1.3E+03 J	9.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	5.2E+02	7.6E+02 (N)	1.1E+03 J	7.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.2E+00	2.1E+01 (G)	2.0E+01 J	2.0E+01	mg/kg	Max	(g)
	Nickel	mg/kg	2.4E+01	3.2E+01 (G)	5.3E+01 J	3.2E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.2E+00 (NP)	3.7E+00 J	3.7E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	6.8E+01	8.7E+01 (N)	1.2E+02 J	8.7E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.3E+03	2.2E+03 (G)	2.7E+03 J	2.2E+03	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WH									
	Trichloroethene	mg/kg	5.3E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	5.6E-01 J	5.6E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	1.5E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	6.9E-01	N/A (<4)	7.2E-01 J	7.2E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	3.1E-01	N/A (<4)	3.2E-01 J	3.2E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	5.2E-01	N/A (<4)	7.4E-01 J	7.4E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.4E-01	N/A (<4)	5.7E-01 J	5.7E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	4.1E-02	N/A (<4)	5.8E-02	5.8E-02	mg/kg	Max	(a)
	Antimony	mg/kg	2.6E+01	3.5E+01 (G)	6.8E+01 J	3.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.7E+02	1.9E+03 (T)	3.2E+03	1.9E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	8.1E+01	9.3E+01 (N)	1.3E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	6.4E+00	1.1E+01 (G)	1.5E+01 J	1.1E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.9E+02	1.2E+03 (G)	2.1E+03	1.2E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.0E+02	1.2E+03 (T)	2.1E+03	1.2E+03	mg/kg	95% UCL - T	(e)
	Lead	mg/kg	1.5E+03	1.8E+03 (N)	2.5E+03	1.8E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	5.1E+02 (G)	7.8E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.0E+00	2.7E+01 (NP)	2.8E+01	2.7E+01	mg/kg	95% UCL - NP	(f)
	Nickel	mg/kg	2.4E+01	4.1E+01 (NP)	4.4E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	5.6E-01	7.7E-01 (N)	1.5E+00	7.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	7.8E+01	9.8E+01 (N)	1.6E+02	9.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.3E+03 (G)	3.2E+03	2.3E+03	mg/kg	95% UCL - G	(h)
	Chromium VI	mg/kg	6.4E-01	1.5E+00 (G)	2.8E+00 J	1.5E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-1									
	Trichloroethene	mg/kg	4.8E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	2.8E-01	5.1E-01 (N)	5.6E-01 J	5.1E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	4.2E-01	8.8E-01 (N)	1.0E+00 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	7.8E-01	1.4E+00 (N)	1.5E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.6E-01	9.3E-01 (N)	9.1E-01 J	9.1E-01	mg/kg	Max	(g)
	Dibenz(a,h)anthracene	mg/kg	1.9E-01	N/A (<4)	3.2E-01 J	3.2E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.2E-01	1.2E+00 (G)	7.4E-01 J	7.4E-01	mg/kg	Max	(g)
	Phenanthrene	mg/kg	3.1E-01	N/A (<4)	5.7E-01 J	5.7E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	2.8E-02	N/A (<4)	5.8E-02	5.8E-02	mg/kg	Max	(a)
	Antimony	mg/kg	1.0E+01	1.4E+01 (G)	6.8E+01 J	1.4E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	6.4E+02	2.5E+03 (T)	4.3E+03	2.5E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	9.3E+01	1.1E+02 (N)	2.1E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.3E+00	8.5E+00 (N)	1.5E+01 J	8.5E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.0E+03	1.5E+03 (G)	5.5E+03 J	1.5E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	6.3E+02	8.4E+02 (G)	2.1E+03	8.4E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.7E+02	5.4E+02 (N)	1.2E+03	5.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.3E+02	1.1E+03 (G)	2.0E+03	1.1E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.2E+00	4.9E+00 (G)	2.8E+01	4.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.9E+01	4.1E+01 (NP)	7.9E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	2.7E+00	1.1E+01 (NP)	1.8E+01 J	1.1E+01	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	6.1E+01	6.9E+01 (N)	1.1E+02	6.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	1.7E+03 (N)	3.8E+03	1.7E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.4E+00	2.0E+00 (G)	7.2E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-2									
	Trichloroethene	mg/kg	3.5E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	2.5E-01	4.2E-01 (N)	5.6E-01 J	4.2E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.6E-01	1.0E+00 (G)	1.0E+00 J	1.0E+00	mg/kg	Max	(g)
	Benzo(b)fluoranthene	mg/kg	6.7E-01	1.1E+00 (N)	1.5E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	4.9E-01	7.4E-01 (N)	8.0E-01 J	7.4E-01	mg/kg	95% UCL - N	(d)
	Dibenz(a,h)anthracene	mg/kg	2.4E-01	N/A (<4)	3.2E-01 J	3.2E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.8E-01	1.5E+00 (G)	7.4E-01 J	7.4E-01	mg/kg	Max	(g)
	Phenanthrene	mg/kg	3.3E-01	5.4E-01 (N)	5.7E-01 J	5.4E-01	mg/kg	95% UCL - N	(d)
	Aroclor 1260	mg/kg	3.5E-02	N/A (<4)	5.8E-02	5.8E-02	mg/kg	Max	(a)
	Antimony	mg/kg	9.3E+00	1.5E+01 (G)	6.8E+01 J	1.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.1E+02	1.8E+03 (NP)	3.2E+03	1.8E+03	mg/kg	95% UCL - NP	(f)
	Barium	mg/kg	7.3E+01	8.7E+01 (N)	1.8E+02	8.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.1E+00	6.3E+00 (N)	1.2E+01	6.3E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.8E+02	9.2E+02 (G)	2.6E+03	9.2E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	5.1E+02	7.5E+02 (G)	2.1E+03	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.2E+02	5.2E+02 (N)	1.2E+03	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	6.5E+02	9.0E+02 (G)	1.9E+03	9.0E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.5E+00	5.3E+00 (T)	2.8E+01	5.3E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.6E+01	3.3E+01 (G)	7.9E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	4.3E-01	5.5E-01 (G)	1.4E+00	5.5E-01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	5.2E+01	6.6E+01 (G)	1.1E+02	6.6E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	1.0E+03	1.3E+03 (N)	2.6E+03	1.3E+03	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-3									
	Trichloroethene	mg/kg	4.8E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	3.5E-01	N/A (<4)	5.6E-01 J	5.6E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	5.8E-01	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	1.5E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	4.6E-01	N/A (<4)	7.2E-01 J	7.2E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	1.8E-01	N/A (<4)	3.2E-01 J	3.2E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.4E-01	N/A (<4)	7.4E-01 J	7.4E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	3.7E-01	N/A (<4)	5.7E-01 J	5.7E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	3.5E-02	N/A (<4)	5.8E-02	5.8E-02	mg/kg	Max	(a)
	Antimony	mg/kg	9.1E+00	1.5E+01 (G)	6.8E+01 J	1.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	2.8E+02	5.0E+02 (T)	3.2E+03	5.0E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.3E+01 (N)	1.8E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.5E+00	6.7E+00 (N)	1.2E+01	6.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	6.3E+02	1.0E+03 (G)	2.6E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	5.6E+02	8.3E+02 (G)	2.1E+03	8.3E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.7E+02	5.7E+02 (N)	1.2E+03	5.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.1E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.6E+00	5.1E+00 (T)	2.8E+01	5.1E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.6E+01 (G)	7.9E+01	3.6E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.7E-01	5.7E-01 (NP)	7.0E-01 J	5.7E-01	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	5.6E+01	6.8E+01 (N)	1.1E+02	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.5E+02	1.2E+03 (N)	2.6E+03	1.2E+03	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WG									
	Trichloroethene	mg/kg	4.2E-02	N/A (<4)	4.2E-02 J	4.2E-02	mg/kg	Max	(a)
	Benzo(a)anthracene	mg/kg	1.3E-01	N/A (<4)	1.3E-01 J	1.3E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	2.9E-01	N/A (<4)	2.9E-01 J	2.9E-01	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	2.0E-01	N/A (<4)	2.0E-01 J	2.0E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	4.6E-02	N/A (<4)	4.6E-02 J	4.6E-02	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.4E-01	N/A (<4)	1.4E-01 J	1.4E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	1.1E-02	N/A (<4)	1.1E-02	1.1E-02	mg/kg	Max	(a)
	Antimony	mg/kg	6.0E+00	9.2E+00 (G)	2.5E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	1.4E+02	2.6E+02 (T)	1.5E+03 J	2.6E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.4E+01 (N)	1.8E+02	9.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	6.4E+00 (N)	1.2E+01	6.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+02	9.3E+02 (G)	2.6E+03	9.3E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.8E+02	6.3E+02 (N)	1.3E+03	6.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	4.3E+02	5.2E+02 (N)	8.1E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.0E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.4E+00	3.0E+00 (T)	1.2E+01 J	3.0E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.5E+01 (N)	7.9E+01	3.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	3.6E-01	4.4E-01 (N)	7.0E-01 J	4.4E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.4E+01	6.5E+01 (N)	1.0E+02	6.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	8.7E+02	1.1E+03 (N)	2.1E+03	1.1E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WW									
	Benzo(b)fluoranthene	mg/kg	3.3E-01	N/A (<4)	3.3E-01 J	3.3E-01	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	6.1E-01	N/A (<4)	6.1E-01 J	6.1E-01	mg/kg	Max	(a)
	Antimony	mg/kg	2.9E+01	N/A (<4)	5.7E+01 J	5.7E+01	mg/kg	Max	(a)
	Arsenic	mg/kg	4.1E+01	5.5E+01 (NP)	5.5E+01 J	5.5E+01	mg/kg	Max	(g)
	Barium	mg/kg	4.4E+02	1.5E+03 (NP)	3.4E+03	1.5E+03	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	4.0E+00	9.6E+00 (NP)	9.6E+00 J	9.6E+00	mg/kg	95% UCL - NP	(f)
	Chromium	mg/kg	1.2E+04	1.5E+04 (N)	2.5E+04 J	1.5E+04	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.5E+02	4.1E+02 (N)	6.0E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+02	3.5E+02 (N)	5.0E+02 J	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	4.2E+02 (N)	8.0E+02	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.2E+00 (N)	1.8E+00	1.2E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	2.3E+01	2.5E+01 (N)	2.9E+01	2.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.2E+00	1.5E+00 (N)	2.7E+00 J	1.5E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	6.8E+01	7.6E+01 (N)	1.0E+02	7.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.2E+03	1.3E+03 (N)	1.9E+03	1.3E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.6E+01	2.0E+01 (N)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - N	(d)
Station JY									
	Aroclor 1254	mg/kg	9.1E-01	1.4E+00 (N)	2.6E+00	1.4E+00	mg/kg	95% UCL - N	(d)
	Aroclor 1260	mg/kg	9.9E-01	1.5E+00 (N)	2.4E+00	1.5E+00	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	5.4E+00	2.5E+01 (NP)	2.0E+01	2.0E+01	mg/kg	Max	(g)
	Arsenic	mg/kg	1.4E+02	2.8E+02 (G)	4.8E+02	2.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	1.3E+02	1.8E+02 (N)	3.5E+02 J	1.8E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.1E+01	1.5E+01 (N)	2.1E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.4E+02	1.2E+03 (N)	1.7E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.8E+02	5.0E+02 (N)	7.4E+02 J	5.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	5.2E+02	7.3E+02 (N)	1.2E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.7E+02 (N)	5.6E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	7.7E-01	1.8E+00 (G)	2.3E+00	1.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	5.2E+01	7.5E+01 (N)	1.5E+02	7.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	2.5E+00	4.0E+00 (G)	6.9E+00 J	4.0E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	4.9E+01	6.4E+01 (N)	9.1E+01	6.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.8E+03	2.4E+03 (N)	2.9E+03	2.4E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.1E+00	1.5E+00 (N)	2.2E+00 J	1.5E+00	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WS/WSS									
	Antimony	mg/kg	4.0E+00	4.9E+00 (N)	7.2E+00 J	4.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.7E+02	2.3E+02 (N)	3.4E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.2E+02	1.4E+02 (N)	2.0E+02	1.4E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.1E+00	1.1E+01 (N)	1.7E+01	1.1E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.0E+02	7.3E+02 (N)	1.3E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.1E+02	4.1E+02 (N)	6.9E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.9E+02	3.7E+02 (N)	4.9E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.0E+03	1.2E+03 (N)	1.4E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.4E+00 (N)	1.8E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	3.0E+01	3.6E+01 (N)	4.6E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.6E-01	1.1E+00 (N)	2.2E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	3.7E+01	4.5E+01 (N)	5.6E+01	4.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.5E+03	2.0E+03 (N)	3.4E+03	2.0E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	6.6E-01	9.5E-01 (N)	1.7E+00 J	9.5E-01	mg/kg	95% UCL - N	(d)
Station TT-30									
	Arsenic	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(a)
	Barium	mg/kg	3.3E+01	N/A (<4)	3.3E+01 J	3.3E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	7.1E+00	N/A (<4)	7.1E+00 J	7.1E+00	mg/kg	Max	(a)
	Chromium	mg/kg	5.3E+03	N/A (<4)	5.3E+03 J	5.3E+03	mg/kg	Max	(a)
	Copper	mg/kg	3.8E+03	N/A (<4)	3.8E+03 J	3.8E+03	mg/kg	Max	(a)
	Lead	mg/kg	4.3E+02	N/A (<4)	4.3E+02 J	4.3E+02	mg/kg	Max	(a)
	Manganese	mg/kg	2.1E+02	N/A (<4)	2.1E+02 J	2.1E+02	mg/kg	Max	(a)
	Mercury	mg/kg	8.9E+01	N/A (<4)	8.9E+01 J	8.9E+01	mg/kg	Max	(a)
	Nickel	mg/kg	8.0E+00	N/A (<4)	8.0E+00	8.0E+00	mg/kg	Max	(a)
	Thallium	mg/kg	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	2.1E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(a)
	Zinc	mg/kg	1.2E+03	N/A (<4)	1.2E+03	1.2E+03	mg/kg	Max	(a)
	Chromium VI	mg/kg	6.9E+00	N/A (<4)	6.9E+00 J	6.9E+00	mg/kg	Max	(a)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station TT-31									
	Arsenic	mg/kg	1.7E+01	N/A (<4)	3.0E+01 J	3.0E+01	mg/kg	Max	(a)
	Barium	mg/kg	9.1E+01	N/A (<4)	1.6E+02 J	1.6E+02	mg/kg	Max	(a)
	Cadmium	mg/kg	4.2E+00	N/A (<4)	5.5E+00 J	5.5E+00	mg/kg	Max	(a)
	Chromium	mg/kg	1.9E+02	N/A (<4)	3.0E+02 J	3.0E+02	mg/kg	Max	(a)
	Copper	mg/kg	1.1E+02	N/A (<4)	1.8E+02 J	1.8E+02	mg/kg	Max	(a)
	Lead	mg/kg	2.8E+02	N/A (<4)	3.3E+02 J	3.3E+02	mg/kg	Max	(a)
	Manganese	mg/kg	5.9E+02	N/A (<4)	1.2E+03 J	1.2E+03	mg/kg	Max	(a)
	Mercury	mg/kg	1.4E+00	N/A (<4)	1.8E+00 J	1.8E+00	mg/kg	Max	(a)
	Nickel	mg/kg	2.6E+01	N/A (<4)	3.6E+01	3.6E+01	mg/kg	Max	(a)
	Vanadium	mg/kg	4.6E+01	N/A (<4)	5.7E+01 J	5.7E+01	mg/kg	Max	(a)
	Zinc	mg/kg	4.6E+02	N/A (<4)	6.8E+02	6.8E+02	mg/kg	Max	(a)
Station CB-01									
	Antimony	mg/kg	1.2E+00	2.0E+00 (G)	4.0E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	4.1E+01	5.8E+01 (N)	9.9E+01 J	5.8E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.9E+01 (N)	1.1E+02	5.9E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	9.3E+00 (G)	1.6E+01 J	9.3E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.2E+02	3.3E+02 (N)	5.8E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.9E+02	7.5E+02 (G)	1.1E+03 J	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	3.2E+02	4.4E+02 (N)	6.5E+02 J	4.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.4E+02	6.9E+02 (G)	1.3E+03 J	6.9E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E+00	2.9E+00 (G)	4.8E+00 J	2.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.2E+00	2.0E+01 (NP)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	1.0E+00	2.5E+00 (T)	3.1E+00	2.5E+00	mg/kg	95% UCL - T	(e)
	Vanadium	mg/kg	5.4E+01	7.9E+01 (G)	1.1E+02	7.9E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	4.2E+02	6.4E+02 (N)	1.2E+03	6.4E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-02									
	Antimony	mg/kg	1.5E+00	1.8E+00 (N)	2.0E+00 J	1.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.7E+01	4.1E+01 (G)	5.6E+01 J	4.1E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	7.9E+01	1.7E+02 (T)	3.9E+02	1.7E+02	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	3.1E+00	3.8E+00 (N)	5.8E+00 J	3.8E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.1E+02	1.4E+02 (N)	2.5E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.5E+01	9.8E+01 (G)	1.7E+02	9.8E+01	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	1.2E+02	2.4E+02 (NP)	3.4E+02 J	2.4E+02	mg/kg	95% UCL - NP	(f)
	Manganese	mg/kg	5.6E+01	7.2E+01 (G)	1.1E+02 J	7.2E+01	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.4E-01	3.3E-01 (G)	5.8E-01	3.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	8.3E+00	1.0E+01 (N)	1.3E+01 J	1.0E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.7E+01	3.2E+01 (N)	4.6E+01	3.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.5E+02	3.1E+02 (N)	4.5E+02 J	3.1E+02	mg/kg	95% UCL - N	(d)
Station CB-03									
	Antimony	mg/kg	1.5E+00	6.8E+00 (NP)	4.8E+00 J	4.8E+00	mg/kg	Max	(g)
	Arsenic	mg/kg	2.7E+02	5.9E+02 (G)	1.4E+03	5.9E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	5.2E+01	6.7E+01 (N)	9.6E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.4E+00	1.3E+01 (G)	2.3E+01 J	1.3E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.6E+02	1.3E+03 (NP)	7.7E+02	7.7E+02	mg/kg	Max	(g)
	Copper	mg/kg	2.7E+02	3.8E+02 (N)	6.7E+02 J	3.8E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.0E+02	2.7E+02 (N)	4.4E+02 J	2.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.8E+02	4.6E+02 (G)	9.9E+02	4.6E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.2E+00	2.5E+00 (G)	3.6E+00	2.5E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.6E+01	3.7E+01 (G)	7.8E+01 J	3.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	7.1E-01	9.7E-01 (N)	1.5E+00 J	9.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	6.2E+01 (N)	9.7E+01 J	6.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.1E+03 (G)	5.3E+03	2.1E+03	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-04									
	Antimony	mg/kg	3.6E+00	4.8E+00 (N)	7.2E+00	4.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.1E+02	1.8E+02 (G)	3.3E+02	1.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	6.1E+01	7.7E+01 (N)	1.1E+02	7.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	4.0E+00	5.7E+00 (N)	8.9E+00	5.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.7E+02	2.7E+02 (G)	5.7E+02	2.7E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.6E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.1E+02	2.8E+02 (N)	4.1E+02	2.8E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	4.0E+02	1.4E+03 (NP)	2.4E+03	1.4E+03	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	7.3E-01	1.2E+00 (G)	2.2E+00	1.2E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	4.1E+01	7.7E+01 (G)	1.8E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.5E+00 (NP)	5.3E+00	5.3E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	5.5E+01	6.8E+01 (N)	8.5E+01	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	3.1E+03 (T)	8.8E+03	3.1E+03	mg/kg	95% UCL - T	(e)
Station CB-06									
	Antimony	mg/kg	1.7E+00	4.7E+00 (NP)	7.8E+00	4.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	9.8E+01	1.4E+02 (N)	2.6E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.1E+01 (N)	6.0E+01	5.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.6E+00	1.7E+01 (G)	3.5E+01	1.7E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.8E+02	5.0E+02 (G)	9.7E+02	5.0E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.9E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.4E+02	1.9E+02 (N)	3.3E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+01	9.4E+01 (N)	1.3E+02 J	9.4E+01	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.3E-01	3.4E-01 (N)	5.6E-01	3.4E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.9E+01	2.8E+01 (G)	4.9E+01	2.8E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.2E+00	4.1E+00 (N)	6.1E+00	4.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.3E+01	7.2E+01 (N)	1.0E+02	7.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	2.1E+03 (N)	3.8E+03 J	2.1E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	3.6E-01	6.5E-01 (G)	1.3E+00 J	6.5E-01	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-07									
	Arsenic	mg/kg	9.1E+01	2.1E+02 (N)	2.3E+02 J	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.2E+01	5.6E+01 (N)	5.7E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	4.9E+00 (N)	5.6E+00	4.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	3.3E+02	7.1E+02 (N)	7.8E+02	7.1E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	8.7E+02 (G)	4.4E+02	4.4E+02	mg/kg	Max	(g)
	Lead	mg/kg	1.5E+02	3.4E+02 (N)	3.8E+02	3.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	6.7E+02 (N)	6.5E+02 J	6.5E+02	mg/kg	Max	(g)
	Mercury	mg/kg	5.6E-01	1.3E+00 (N)	1.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.4E+01	2.2E+01 (N)	2.3E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	9.2E+01 (N)	1.0E+02	9.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.0E+02	6.2E+02 (N)	6.7E+02 J	6.2E+02	mg/kg	95% UCL - N	(d)
Station 16/TT-33									
	Benzo(a)anthracene	mg/kg	2.4E-01	3.9E-01 (N)	1.1E-01 J	1.1E-01	mg/kg	Max	(g)
	Benzo(a)pyrene	mg/kg	2.5E-01	3.9E-01 (N)	1.4E-01 J	1.4E-01	mg/kg	Max	(g)
	Benzo(b)fluoranthene	mg/kg	2.3E-01	4.2E-01 (N)	2.6E-01	2.6E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	1.9E-01	3.9E-01 (N)	9.9E-02 J	9.9E-02	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.3E-01	4.0E-01 (N)	6.0E-02 J	6.0E-02	mg/kg	Max	(g)
	Phenanthrene	mg/kg	2.4E-01	3.9E-01 (N)	1.3E-01 J	1.3E-01	mg/kg	Max	(g)
	Antimony	mg/kg	3.4E+00	5.9E+00 (N)	9.1E+00 J	5.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.4E+02	2.4E+02 (N)	2.9E+02 J	2.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.2E+01	6.2E+01 (N)	7.8E+01	6.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.6E+00 (N)	7.4E+00 J	5.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.7E+02	4.2E+03 (G)	2.2E+03 J	2.2E+03	mg/kg	Max	(g)
	Copper	mg/kg	2.4E+02	4.0E+02 (N)	4.9E+02 J	4.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.2E+02	2.0E+02 (N)	2.9E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.9E+02	8.8E+02 (G)	7.8E+02	7.8E+02	mg/kg	Max	(g)
	Mercury	mg/kg	1.9E+00	3.4E+00 (N)	5.6E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.0E+01	1.5E+01 (N)	2.2E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.0E+01	3.1E+01 (N)	4.2E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.8E+02	9.3E+02 (N)	1.1E+03 J	9.3E+02	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	7.4E-01	5.4E+00 (G)	2.9E+00 J	2.9E+00	mg/kg	Max	(g)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 09									
	Benzo(a)anthracene	mg/kg	2.1E-01	4.8E-01 (T)	1.0E+00	4.8E-01	mg/kg	95% UCL - T	(e)
	Benzo(a)pyrene	mg/kg	2.1E-01	5.0E-01 (T)	1.1E+00	5.0E-01	mg/kg	95% UCL - T	(e)
	Benzo(b)fluoranthene	mg/kg	4.0E-01	1.3E+00 (NP)	2.3E+00	1.3E+00	mg/kg	95% UCL - NP	(f)
	Benzo(k)fluoranthene	mg/kg	3.6E-01	1.2E+00 (NP)	2.1E+00	1.2E+00	mg/kg	95% UCL - NP	(f)
	Dibenz(a,h)anthracene	mg/kg	2.1E-01	2.3E-01 (NP)	8.0E-02 J	8.0E-02	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E-01	2.5E-01 (N)	3.7E-01 J	2.5E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	3.1E-01	2.1E+00 (NP)	1.9E+00	1.9E+00	mg/kg	Max	(g)
	Antimony	mg/kg	8.1E-01	1.0E+00 (N)	1.3E+00	1.0E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.9E+01	3.5E+01 (N)	4.9E+01 J	3.5E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	2.1E+01	3.3E+01 (G)	7.4E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (G)	1.2E+00 J	6.8E-01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.5E+01	5.9E+01 (N)	9.2E+01 J	5.9E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.7E+01	6.3E+01 (N)	1.0E+02 J	6.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+01	4.4E+01 (N)	8.7E+01	4.4E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	2.9E+03 (NP)	2.6E+03 J	2.6E+03	mg/kg	Max	(g)
	Mercury	mg/kg	2.6E-01	3.9E-01 (N)	6.8E-01 J	3.9E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	8.0E+00	9.7E+00 (G)	1.3E+01	9.7E+00	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	9.2E-01	1.3E+00 (N)	2.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.1E+01	1.4E+01 (N)	1.9E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+02	2.4E+02 (G)	4.8E+02 J	2.4E+02	mg/kg	95% UCL - G	(h)
Station AM									
	Antimony	mg/kg	2.0E+00	N/A (<4)	2.0E+00 J	2.0E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(a)
	Barium	mg/kg	5.8E+01	N/A (<4)	5.8E+01	5.8E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	3.9E+00	N/A (<4)	3.9E+00	3.9E+00	mg/kg	Max	(a)
	Chromium	mg/kg	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	2.0E+02	N/A (<4)	2.0E+02	2.0E+02	mg/kg	Max	(a)
	Lead	mg/kg	1.5E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(a)
	Mercury	mg/kg	1.9E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.8E+01	N/A (<4)	1.8E+01 J	1.8E+01	mg/kg	Max	(a)
	Thallium	mg/kg	4.4E-01	N/A (<4)	4.4E-01 J	4.4E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	2.7E+01	N/A (<4)	2.7E+01	2.7E+01	mg/kg	Max	(a)
	Zinc	mg/kg	9.4E+02	N/A (<4)	9.4E+02	9.4E+02	mg/kg	Max	(a)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station KF									
	Arsenic	mg/kg	3.8E+01	5.2E+01 (N)	9.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.3E+01	4.1E+01 (N)	5.5E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.6E-01	1.0E+00 (G)	1.1E+00	1.0E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	6.7E+01	8.8E+01 (N)	1.1E+02	8.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.9E+01	1.1E+02 (N)	1.9E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	9.7E+01	1.3E+02 (N)	1.9E+02	1.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.6E+02 (N)	5.0E+02	3.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.1E-01	8.9E-01 (G)	1.6E+00 J	8.9E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	6.7E+00	9.0E+00 (N)	1.3E+01	9.0E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.3E+01 (N)	3.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.8E+02	3.5E+02 (N)	4.6E+02	3.5E+02	mg/kg	95% UCL - N	(d)
Station 08									
	Benzo(a)anthracene	mg/kg	4.8E-01	N/A (<4)	6.8E-01	6.8E-01	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	6.3E-01	N/A (<4)	9.4E-01	9.4E-01	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	1.3E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.0E+00	2.0E+00	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	9.3E-02	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.0E-01	N/A (<4)	6.8E-01	6.8E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.8E-01	N/A (<4)	6.1E-01	6.1E-01	mg/kg	Max	(a)
	Antimony	mg/kg	1.0E+00	N/A (<4)	1.6E+00	1.6E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.9E+01	N/A (<4)	2.9E+01 J	2.9E+01	mg/kg	Max	(a)
	Barium	mg/kg	1.9E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(a)
	Chromium	mg/kg	5.4E+01	N/A (<4)	1.2E+02 J	1.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	7.4E+01	N/A (<4)	1.3E+02 J	1.3E+02	mg/kg	Max	(a)
	Lead	mg/kg	4.3E+01	N/A (<4)	7.1E+01	7.1E+01	mg/kg	Max	(a)
	Manganese	mg/kg	1.6E+02	N/A (<4)	2.3E+02 J	2.3E+02	mg/kg	Max	(a)
	Mercury	mg/kg	4.6E-01	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.0E+01	2.0E+01	mg/kg	Max	(a)
	Thallium	mg/kg	1.4E+00	N/A (<4)	1.7E+00	1.7E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	1.5E+01	N/A (<4)	1.8E+01	1.8E+01	mg/kg	Max	(a)
	Zinc	mg/kg	3.5E+02	N/A (<4)	5.4E+02 J	5.4E+02	mg/kg	Max	(a)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 07/DP									
	Trichloroethene	mg/kg	1.5E-02	2.2E-02 (G)	3.5E-02 J	2.2E-02	mg/kg	95% UCL - G	(h)
	Benzo(a)anthracene	mg/kg	3.8E+00	5.6E+00 (N)	9.6E+00	5.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.8E+00	5.5E+00 (N)	1.0E+01	5.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	6.6E+00	9.5E+00 (N)	1.6E+01 J	9.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.0E+00	9.2E+00 (G)	1.4E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Dibenz(a,h)anthracene	mg/kg	5.5E-01	1.1E+00 (G)	2.0E+00	1.1E+00	mg/kg	95% UCL - G	(h)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E+00	3.9E+00 (G)	6.9E+00	3.9E+00	mg/kg	95% UCL - G	(h)
	Phenanthrene	mg/kg	3.7E+00	6.8E+00 (G)	1.2E+01	6.8E+00	mg/kg	95% UCL - G	(h)
	Aroclor 1260	mg/kg	5.1E-02	6.6E-02 (N)	7.4E-02	6.6E-02	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	1.9E+00	2.3E+00 (N)	3.1E+00	2.3E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.7E+01	8.0E+01 (N)	1.3E+02 J	8.0E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	6.4E+01	8.4E+01 (N)	1.2E+02	8.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.1E+00 (N)	1.0E+01	5.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.8E+02	2.5E+02 (N)	4.4E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	2.3E+02 (N)	3.8E+02 J	2.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.5E+02	3.5E+02 (N)	4.8E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.2E+02	4.2E+02 (N)	6.0E+02 J	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.4E+00	2.8E+00 (G)	5.7E+00 J	2.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.2E+01	2.7E+01 (N)	3.8E+01	2.7E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	2.2E+00 (N)	3.8E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.0E+01	5.2E+01 (N)	7.9E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.3E+02	1.3E+03 (N)	2.5E+03 J	1.3E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station LP									
	Antimony	mg/kg	1.2E+00	1.7E+00 (NP)	5.1E+00 J	1.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	7.0E+01	1.5E+02 (T)	4.9E+02 J	1.5E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	3.0E+01	3.7E+01 (N)	6.9E+01	3.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.9E+00	2.6E+00 (N)	5.6E+00 J	2.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.2E+01	7.7E+01 (G)	1.3E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.9E+02	3.7E+02 (G)	1.6E+03 J	3.7E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	8.3E+01	1.4E+02 (G)	4.0E+02 J	1.4E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.7E+02	2.1E+02 (N)	3.3E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.6E-01	7.3E-01 (G)	1.4E+00	7.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.7E+00	1.4E+01 (G)	3.1E+01	1.4E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.6E+00	1.9E+00 (N)	2.9E+00 J	1.9E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.6E+01	2.1E+01 (G)	4.0E+01	2.1E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	7.0E+02	1.3E+03 (G)	2.8E+03	1.3E+03	mg/kg	95% UCL - G	(h)
Station AS									
	Antimony	mg/kg	2.5E+00	N/A (<4)	2.9E+00 J	2.9E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(a)
	Barium	mg/kg	1.0E+02	N/A (<4)	1.1E+02	1.1E+02	mg/kg	Max	(a)
	Cadmium	mg/kg	1.2E+01	N/A (<4)	1.3E+01	1.3E+01	mg/kg	Max	(a)
	Chromium	mg/kg	7.5E+02	N/A (<4)	9.2E+02	9.2E+02	mg/kg	Max	(a)
	Copper	mg/kg	5.1E+02	N/A (<4)	5.8E+02	5.8E+02	mg/kg	Max	(a)
	Lead	mg/kg	5.7E+02	N/A (<4)	6.6E+02	6.6E+02	mg/kg	Max	(a)
	Manganese	mg/kg	3.8E+02	N/A (<4)	3.8E+02 J	3.8E+02	mg/kg	Max	(a)
	Mercury	mg/kg	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	mg/kg	Max	(a)
	Nickel	mg/kg	3.7E+01	N/A (<4)	3.9E+01 J	3.9E+01	mg/kg	Max	(a)
	Thallium	mg/kg	1.1E+00	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Vanadium	mg/kg	6.6E+01	N/A (<4)	7.3E+01	7.3E+01	mg/kg	Max	(a)
	Zinc	mg/kg	2.2E+03	N/A (<4)	2.3E+03	2.3E+03	mg/kg	Max	(a)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 05									
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	2.3E+00 J	2.3E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	3.5E-01	N/A (<4)	2.5E+00 J	2.5E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	3.5E-01	N/A (<4)	3.0E+00 J	3.0E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	2.5E-01	N/A (<4)	1.9E+00 J	1.9E+00	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.7E-01	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Phenanthrene	mg/kg	6.8E-01	N/A (<4)	2.2E+00 J	2.2E+00	mg/kg	Max	(a)
	Antimony	mg/kg	9.4E-01	N/A (<4)	1.8E+00 J	1.8E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	8.3E+00	N/A (<4)	2.5E+01	2.5E+01	mg/kg	Max	(a)
	Barium	mg/kg	3.5E+01	N/A (<4)	4.3E+01	4.3E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	2.2E-01	N/A (<4)	1.6E+00	1.6E+00	mg/kg	Max	(a)
	Chromium	mg/kg	3.4E+01	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Copper	mg/kg	2.5E+01	N/A (<4)	8.0E+01	8.0E+01	mg/kg	Max	(a)
	Lead	mg/kg	2.7E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	4.2E+02	N/A (<4)	9.5E+02	9.5E+02	mg/kg	Max	(a)
	Mercury	mg/kg	9.0E-02	N/A (<4)	1.2E+00 J	1.2E+00	mg/kg	Max	(a)
	Nickel	mg/kg	1.0E+01	N/A (<4)	1.1E+01	1.1E+01	mg/kg	Max	(a)
	Thallium	mg/kg	6.1E-01	N/A (<4)	9.7E-01	9.7E-01	mg/kg	Max	(a)
	Vanadium	mg/kg	1.9E+01	N/A (<4)	1.9E+01	1.9E+01	mg/kg	Max	(a)
	Zinc	mg/kg	1.2E+02	N/A (<4)	5.7E+02	5.7E+02	mg/kg	Max	(a)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 03									
	Benzo(a)anthracene	mg/kg	5.7E-01	N/A (<4)	1.3E+00	1.3E+00	mg/kg	Max	(a)
	Benzo(a)pyrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Benzo(b)fluoranthene	mg/kg	6.0E-01	N/A (<4)	1.4E+00	1.4E+00	mg/kg	Max	(a)
	Benzo(k)fluoranthene	mg/kg	3.5E-01	N/A (<4)	6.4E-01	6.4E-01	mg/kg	Max	(a)
	Dibenz(a,h)anthracene	mg/kg	1.7E-01	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(a)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.4E-01	N/A (<4)	6.2E-01	6.2E-01	mg/kg	Max	(a)
	Phenanthrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	1.0E+00	mg/kg	Max	(a)
	Aroclor 1260	mg/kg	5.0E-02	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(a)
	Antimony	mg/kg	8.0E-01	N/A (<4)	1.7E+00 J	1.7E+00	mg/kg	Max	(a)
	Arsenic	mg/kg	3.3E+01	N/A (<4)	8.7E+01	8.7E+01	mg/kg	Max	(a)
	Barium	mg/kg	3.5E+01	N/A (<4)	8.5E+01	8.5E+01	mg/kg	Max	(a)
	Cadmium	mg/kg	1.7E+00	N/A (<4)	5.2E+00	5.2E+00	mg/kg	Max	(a)
	Chromium	mg/kg	7.3E+01	N/A (<4)	2.0E+02 J	2.0E+02	mg/kg	Max	(a)
	Copper	mg/kg	6.2E+01	N/A (<4)	1.7E+02	1.7E+02	mg/kg	Max	(a)
	Lead	mg/kg	1.2E+02	N/A (<4)	3.5E+02 J	3.5E+02	mg/kg	Max	(a)
	Manganese	mg/kg	2.1E+02	N/A (<4)	5.0E+02	5.0E+02	mg/kg	Max	(a)
	Mercury	mg/kg	2.6E-01	N/A (<4)	7.1E-01	7.1E-01	mg/kg	Max	(a)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.7E+01 J	2.7E+01	mg/kg	Max	(a)
	Vanadium	mg/kg	2.2E+01	N/A (<4)	4.9E+01	4.9E+01	mg/kg	Max	(a)
	Zinc	mg/kg	5.2E+02	N/A (<4)	1.4E+03 J	1.4E+03	mg/kg	Max	(a)

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TABLE 3-3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 01									
	Benzo(a)anthracene	mg/kg	1.9E-01	2.5E-01 (N)	2.5E-01 J	2.5E-01	mg/kg	Max	(g)
	Benzo(a)pyrene	mg/kg	1.7E-01	2.4E-01 (NP)	2.1E-01 J	2.1E-01	mg/kg	Max	(g)
	Benzo(b)fluoranthene	mg/kg	1.7E-01	2.2E-01 (N)	1.7E-01 J	1.7E-01	mg/kg	Max	(g)
	Benzo(k)fluoranthene	mg/kg	1.8E-01	2.4E-01 (NP)	2.1E-01 J	2.1E-01	mg/kg	Max	(g)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.8E-01	2.2E-01 (N)	1.2E-01 J	1.2E-01	mg/kg	Max	(g)
	Phenanthrene	mg/kg	3.0E-01	4.6E-01 (N)	5.0E-01 J	4.6E-01	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	4.9E-01	8.8E-01 (N)	9.4E-01 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	4.6E+00	6.2E+00 (N)	6.2E+00	6.2E+00	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.1E+01	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.8E-02	1.7E-01 (N)	1.8E-01	1.7E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.3E+00	1.0E+01 (N)	9.8E+00	9.8E+00	mg/kg	Max	(g)
	Copper	mg/kg	1.2E+01	1.7E+01 (N)	1.7E+01	1.7E+01	mg/kg	Max	(g)
	Lead	mg/kg	1.9E+01	3.6E+01 (N)	4.0E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.2E+01	1.0E+02 (N)	1.0E+02	1.0E+02	mg/kg	Max	(g)
	Nickel	mg/kg	6.4E+00	7.6E+00 (N)	7.2E+00	7.2E+00	mg/kg	Max	(g)
	Thallium	mg/kg	4.0E-01	5.2E-01 (N)	5.4E-01	5.2E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	9.6E+00	1.2E+01 (N)	1.2E+01	1.2E+01	mg/kg	Max	(g)
	Zinc	mg/kg	1.0E+02	1.6E+02 (N)	1.5E+02	1.5E+02	mg/kg	Max	(g)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.2 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.7E+02	2.1E+02 (N)	2.2E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.1E+01	5.6E+01 (N)	6.6E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.3E+00	2.2E+00 (N)	2.7E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.9E+02	2.5E+02 (N)	2.6E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.0E+02	3.0E+02 (N)	3.7E+02	3.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.6E+02	2.2E+02 (N)	2.5E+02	2.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.6E+02	2.5E+02 (N)	3.2E+02	2.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	4.5E+00 (N)	5.9E+00	4.5E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.1E+01	1.4E+01 (N)	1.6E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.4E+01	3.1E+01 (N)	3.3E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.4E+02	4.9E+02 (N)	6.0E+02 J	4.9E+02	mg/kg	95% UCL - N	(d)
Station 14									
	Benzo(a)anthracene	mg/kg	9.7E-01	N/A (<4)	1.1E+00 J	9.7E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	8.9E-01 J	8.9E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.1E+00 J	1.4E+00	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.1E+00	N/A (<4)	1.1E+00 J	1.1E+00	mg/kg	Max	(c)
	Phenanthrene	mg/kg	1.5E+00	N/A (<4)	2.6E+00 J	1.5E+00	mg/kg	Mean	(b)
	Antimony	mg/kg	9.1E-01	N/A (<4)	9.9E-01 J	9.1E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	6.1E+01	N/A (<4)	7.3E+01	6.1E+01	mg/kg	Mean	(b)
	Barium	mg/kg	1.6E+01	N/A (<4)	1.8E+01	1.6E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	6.4E-01	N/A (<4)	1.0E+00	6.4E-01	mg/kg	Mean	(b)
	Chromium	mg/kg	1.0E+02	N/A (<4)	2.2E+02	1.0E+02	mg/kg	Mean	(b)
	Copper	mg/kg	5.7E+01	N/A (<4)	6.5E+01	5.7E+01	mg/kg	Mean	(b)
	Lead	mg/kg	6.8E+01	N/A (<4)	1.3E+02 J	6.8E+01	mg/kg	Mean	(b)
	Manganese	mg/kg	1.3E+02	N/A (<4)	1.7E+02 J	1.3E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	5.9E-01	N/A (<4)	1.4E+00 J	5.9E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	7.3E+00	N/A (<4)	1.0E+01	7.3E+00	mg/kg	Mean	(b)
	Thallium	mg/kg	4.9E-01	N/A (<4)	8.1E-01	4.9E-01	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.1E+01	N/A (<4)	1.3E+01	1.1E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	2.2E+02	N/A (<4)	2.7E+02	2.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 22/TT-22									
	Tetrachloroethene	mg/kg	1.1E+00	2.8E+00 (N)	3.2E+00	2.8E+00	mg/kg	95% UCL - N	(d)
	Trichloroethene	mg/kg	2.6E-01	7.0E-01 (N)	8.0E-01	7.0E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)anthracene	mg/kg	3.4E-01	N/A (<4)	3.0E-01	3.0E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	3.2E-01	N/A (<4)	2.0E-01	2.0E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	3.9E-01	4.9E-01 (NP)	4.4E-01	3.9E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	4.2E-01	N/A (<4)	5.4E-01 J	4.2E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	2.5E-01	N/A (<4)	4.4E-02 J	4.4E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.1E-01	N/A (<4)	2.2E-01	2.2E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	4.0E-01	N/A (<4)	4.9E-01	4.0E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	3.2E-02	N/A (<4)	2.9E-02	2.9E-02	mg/kg	Max	(c)
	Antimony	mg/kg	7.0E+01	9.2E+02 (G)	3.3E+02 J	7.0E+01	mg/kg	Mean	(b)
	Arsenic	mg/kg	2.1E+01	7.7E+01 (G)	8.7E+01 J	7.7E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	4.1E+01	4.9E+01 (NP)	5.1E+01 J	4.9E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	1.7E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	2.5E+01	6.5E+01 (T)	8.5E+01 J	6.5E+01	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	2.3E+01	2.9E+01 (N)	3.8E+01 J	2.9E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	6.8E+03	3.3E+04 (T)	4.1E+04 J	3.3E+04	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	7.1E+01	1.2E+02 (G)	1.9E+02 J	1.2E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E-01	4.6E-01 (G)	5.0E-01	4.6E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	7.8E+00	1.1E+01 (G)	1.8E+01	1.1E+01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	3.1E+01	4.1E+01 (N)	5.0E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	7.0E+01	9.6E+01 (N)	1.2E+02 J	9.6E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 13/TT-27									
	Trichloroethene	mg/kg	2.2E-02	N/A (<4)	3.7E-02 J	2.2E-02	mg/kg	Mean	(b)
	Benzo(a)anthracene	mg/kg	8.3E-01	1.3E+00 (N)	1.7E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	9.1E-01	1.3E+00 (N)	1.7E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	1.7E+00	2.6E+00 (N)	3.6E+00 J	2.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	1.3E+00	2.3E+00 (N)	3.4E+00 J	2.3E+00	mg/kg	95% UCL - N	(d)
	Dibenz(a,h)anthracene	mg/kg	2.2E-01	3.1E-01 (N)	3.3E-01 J	3.1E-01	mg/kg	95% UCL - N	(d)
	Indeno(1,2,3-cd)pyrene	mg/kg	6.4E-01	8.8E-01 (N)	1.0E+00	8.8E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	9.5E-01	1.7E+00 (N)	2.7E+00	1.7E+00	mg/kg	95% UCL - N	(d)
	Aroclor 1254	mg/kg	1.6E-02	N/A (<4)	4.5E-02	1.6E-02	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	1.6E-01	3.3E-01 (N)	3.1E-01 J	1.6E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	1.3E+01	9.2E+01 (G)	6.1E+01 J	1.3E+01	mg/kg	Mean	(b)
	Arsenic	mg/kg	8.8E+02	3.6E+03 (G)	4.2E+03 J	3.6E+03	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	1.6E+02	2.4E+02 (G)	3.9E+02	2.4E+02	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	6.8E+00	9.4E+00 (N)	1.4E+01 J	9.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	4.0E+02	5.6E+02 (N)	7.3E+02 J	5.6E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.4E+02	1.6E+03 (G)	2.3E+03 J	1.6E+03	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	7.0E+02	9.5E+02 (N)	1.3E+03 J	9.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	5.2E+02	7.6E+02 (N)	1.1E+03 J	7.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.2E+00	2.1E+01 (G)	2.0E+01 J	5.2E+00	mg/kg	Mean	(b)
	Nickel	mg/kg	2.4E+01	3.2E+01 (G)	5.3E+01 J	3.2E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.2E+00 (NP)	3.7E+00 J	1.1E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	6.8E+01	8.7E+01 (N)	1.2E+02 J	8.7E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.3E+03	2.2E+03 (G)	2.7E+03 J	2.2E+03	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WH									
	Trichloroethene	mg/kg	5.3E-02	N/A (<4)	5.3E-02 J	5.3E-02	mg/kg	Max	(c)
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	5.6E-01 J	4.3E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.0E+00	N/A (<4)	1.0E+00 J	1.0E+00	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	9.0E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	6.9E-01	N/A (<4)	7.2E-01 J	6.9E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	3.1E-01	N/A (<4)	3.2E-01 J	3.1E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	5.2E-01	N/A (<4)	7.4E-01 J	5.2E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.4E-01	N/A (<4)	5.7E-01 J	4.4E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	4.1E-02	N/A (<4)	5.8E-02	4.1E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	2.6E+01	3.5E+01 (G)	6.8E+01 J	3.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.7E+02	1.9E+03 (T)	3.2E+03	1.9E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	8.1E+01	9.3E+01 (N)	1.3E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	6.4E+00	1.1E+01 (G)	1.5E+01 J	1.1E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.9E+02	1.2E+03 (G)	2.1E+03	1.2E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.0E+02	1.2E+03 (T)	2.1E+03	1.2E+03	mg/kg	95% UCL - T	(e)
	Lead	mg/kg	1.5E+03	1.8E+03 (N)	2.5E+03	1.8E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	5.1E+02 (G)	7.8E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.0E+00	2.7E+01 (NP)	2.8E+01	2.7E+01	mg/kg	95% UCL - NP	(f)
	Nickel	mg/kg	2.4E+01	4.1E+01 (NP)	4.4E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	5.6E-01	7.7E-01 (N)	1.5E+00	7.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	7.8E+01	9.8E+01 (N)	1.6E+02	9.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.3E+03 (G)	3.2E+03	2.3E+03	mg/kg	95% UCL - G	(h)
	Chromium VI	mg/kg	6.4E-01	1.5E+00 (G)	2.8E+00 J	1.5E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-1									
	Trichloroethene	mg/kg	4.8E-02	N/A (<4)	5.3E-02 J	4.8E-02	mg/kg	Mean	(b)
	Benzo(a)anthracene	mg/kg	2.8E-01	5.1E-01 (N)	5.6E-01 J	5.1E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	4.2E-01	8.8E-01 (N)	1.0E+00 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	7.8E-01	1.4E+00 (N)	1.5E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.6E-01	9.3E-01 (N)	9.1E-01 J	5.6E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	1.9E-01	N/A (<4)	3.2E-01 J	1.9E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.2E-01	1.2E+00 (G)	7.4E-01 J	3.2E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	3.1E-01	N/A (<4)	5.7E-01 J	3.1E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	2.8E-02	N/A (<4)	5.8E-02	2.8E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	1.0E+01	1.4E+01 (G)	6.8E+01 J	1.4E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	6.4E+02	2.5E+03 (T)	4.3E+03	2.5E+03	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	9.3E+01	1.1E+02 (N)	2.1E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.3E+00	8.5E+00 (N)	1.5E+01 J	8.5E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.0E+03	1.5E+03 (G)	5.5E+03 J	1.5E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	6.3E+02	8.4E+02 (G)	2.1E+03	8.4E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.7E+02	5.4E+02 (N)	1.2E+03	5.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.3E+02	1.1E+03 (G)	2.0E+03	1.1E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	3.2E+00	4.9E+00 (G)	2.8E+01	4.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.9E+01	4.1E+01 (NP)	7.9E+01	4.1E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	2.7E+00	1.1E+01 (NP)	1.8E+01 J	1.1E+01	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	6.1E+01	6.9E+01 (N)	1.1E+02	6.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	1.7E+03 (N)	3.8E+03	1.7E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.4E+00	2.0E+00 (G)	7.2E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-2									
	Trichloroethene	mg/kg	3.5E-02	N/A (<4)	5.3E-02 J	3.5E-02	mg/kg	Mean	(b)
	Benzo(a)anthracene	mg/kg	2.5E-01	4.2E-01 (N)	5.6E-01 J	4.2E-01	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.6E-01	1.0E+00 (G)	1.0E+00 J	3.6E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	6.7E-01	1.1E+00 (N)	1.5E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	4.9E-01	7.4E-01 (N)	8.0E-01 J	7.4E-01	mg/kg	95% UCL - N	(d)
	Dibenz(a,h)anthracene	mg/kg	2.4E-01	N/A (<4)	3.2E-01 J	2.4E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.8E-01	1.5E+00 (G)	7.4E-01 J	2.8E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	3.3E-01	5.4E-01 (N)	5.7E-01 J	5.4E-01	mg/kg	95% UCL - N	(d)
	Aroclor 1260	mg/kg	3.5E-02	N/A (<4)	5.8E-02	3.5E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	9.3E+00	1.5E+01 (G)	6.8E+01 J	1.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	3.1E+02	1.8E+03 (NP)	3.2E+03	1.8E+03	mg/kg	95% UCL - NP	(f)
	Barium	mg/kg	7.3E+01	8.7E+01 (N)	1.8E+02	8.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.1E+00	6.3E+00 (N)	1.2E+01	6.3E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.8E+02	9.2E+02 (G)	2.6E+03	9.2E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	5.1E+02	7.5E+02 (G)	2.1E+03	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.2E+02	5.2E+02 (N)	1.2E+03	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	6.5E+02	9.0E+02 (G)	1.9E+03	9.0E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.5E+00	5.3E+00 (T)	2.8E+01	5.3E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.6E+01	3.3E+01 (G)	7.9E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	4.3E-01	5.5E-01 (G)	1.4E+00	5.5E-01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	5.2E+01	6.6E+01 (G)	1.1E+02	6.6E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	1.0E+03	1.3E+03 (N)	2.6E+03	1.3E+03	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NT-3									
	Trichloroethene	mg/kg	4.8E-02	N/A (<4)	5.3E-02 J	4.8E-02	mg/kg	Mean	(b)
	Benzo(a)anthracene	mg/kg	3.5E-01	N/A (<4)	5.6E-01 J	3.5E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	5.8E-01	N/A (<4)	1.0E+00 J	5.8E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	9.0E-01	N/A (<4)	1.5E+00 J	9.0E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	4.6E-01	N/A (<4)	7.2E-01 J	4.6E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	1.8E-01	N/A (<4)	3.2E-01 J	1.8E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.4E-01	N/A (<4)	7.4E-01 J	4.4E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	3.7E-01	N/A (<4)	5.7E-01 J	3.7E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	3.5E-02	N/A (<4)	5.8E-02	3.5E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	9.1E+00	1.5E+01 (G)	6.8E+01 J	1.5E+01	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	2.8E+02	5.0E+02 (T)	3.2E+03	5.0E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.3E+01 (N)	1.8E+02	9.3E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.5E+00	6.7E+00 (N)	1.2E+01	6.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	6.3E+02	1.0E+03 (G)	2.6E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	5.6E+02	8.3E+02 (G)	2.1E+03	8.3E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	4.7E+02	5.7E+02 (N)	1.2E+03	5.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.1E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.6E+00	5.1E+00 (T)	2.8E+01	5.1E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.6E+01 (G)	7.9E+01	3.6E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.7E-01	5.7E-01 (NP)	7.0E-01 J	5.7E-01	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	5.6E+01	6.8E+01 (N)	1.1E+02	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.5E+02	1.2E+03 (N)	2.6E+03	1.2E+03	mg/kg	95% UCL - N	(d)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WG									
	Trichloroethene	mg/kg	4.2E-02	N/A (<4)	4.2E-02 J	4.2E-02	mg/kg	Max	(c)
	Benzo(a)anthracene	mg/kg	1.3E-01	N/A (<4)	1.3E-01 J	1.3E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	2.9E-01	N/A (<4)	2.9E-01 J	2.9E-01	mg/kg	Max	(c)
	Benzo(k)fluoranthene	mg/kg	2.0E-01	N/A (<4)	2.0E-01 J	2.0E-01	mg/kg	Max	(c)
	Dibenz(a,h)anthracene	mg/kg	4.6E-02	N/A (<4)	4.6E-02 J	4.6E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.4E-01	N/A (<4)	1.4E-01 J	1.4E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	1.6E-01	N/A (<4)	1.6E-01 J	1.6E-01	mg/kg	Max	(c)
	Aroclor 1260	mg/kg	1.1E-02	N/A (<4)	1.1E-02	1.1E-02	mg/kg	Max	(c)
	Antimony	mg/kg	6.0E+00	9.2E+00 (G)	2.5E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	1.4E+02	2.6E+02 (T)	1.5E+03 J	2.6E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	7.9E+01	9.4E+01 (N)	1.8E+02	9.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	6.4E+00 (N)	1.2E+01	6.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+02	9.3E+02 (G)	2.6E+03	9.3E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	4.8E+02	6.3E+02 (N)	1.3E+03	6.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	4.3E+02	5.2E+02 (N)	8.1E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.0E+02	1.0E+03 (G)	1.9E+03	1.0E+03	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.4E+00	3.0E+00 (T)	1.2E+01 J	3.0E+00	mg/kg	95% UCL - T	(e)
	Nickel	mg/kg	2.8E+01	3.5E+01 (N)	7.9E+01	3.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	3.6E-01	4.4E-01 (N)	7.0E-01 J	4.4E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.4E+01	6.5E+01 (N)	1.0E+02	6.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	8.7E+02	1.1E+03 (N)	2.1E+03	1.1E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WW									
	Benzo(b)fluoranthene	mg/kg	3.3E-01	N/A (<4)	3.3E-01 J	3.3E-01	mg/kg	Max	(c)
	Benzo(k)fluoranthene	mg/kg	6.1E-01	N/A (<4)	6.1E-01 J	6.1E-01	mg/kg	Max	(c)
	Antimony	mg/kg	2.9E+01	N/A (<4)	5.7E+01 J	2.9E+01	mg/kg	Mean	(b)
	Arsenic	mg/kg	4.1E+01	5.5E+01 (NP)	5.5E+01 J	4.1E+01	mg/kg	Mean	(b)
	Barium	mg/kg	4.4E+02	1.5E+03 (NP)	3.4E+03	1.5E+03	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	4.0E+00	9.6E+00 (NP)	9.6E+00 J	9.6E+00	mg/kg	95% UCL - NP	(f)
	Chromium	mg/kg	1.2E+04	1.5E+04 (N)	2.5E+04 J	1.5E+04	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.5E+02	4.1E+02 (N)	6.0E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+02	3.5E+02 (N)	5.0E+02 J	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	4.2E+02 (N)	8.0E+02	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.2E+00 (N)	1.8E+00	1.2E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	2.3E+01	2.5E+01 (N)	2.9E+01	2.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.2E+00	1.5E+00 (N)	2.7E+00 J	1.5E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	6.8E+01	7.6E+01 (N)	1.0E+02	7.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.2E+03	1.3E+03 (N)	1.9E+03	1.3E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.6E+01	2.0E+01 (N)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - N	(d)
Station JY									
	Aroclor 1254	mg/kg	9.1E-01	1.4E+00 (N)	2.6E+00	1.4E+00	mg/kg	95% UCL - N	(d)
	Aroclor 1260	mg/kg	9.9E-01	1.5E+00 (N)	2.4E+00	1.5E+00	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	5.4E+00	2.5E+01 (NP)	2.0E+01	5.4E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	1.4E+02	2.8E+02 (G)	4.8E+02	2.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	1.3E+02	1.8E+02 (N)	3.5E+02 J	1.8E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.1E+01	1.5E+01 (N)	2.1E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.4E+02	1.2E+03 (N)	1.7E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.8E+02	5.0E+02 (N)	7.4E+02 J	5.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	5.2E+02	7.3E+02 (N)	1.2E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.7E+02 (N)	5.6E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	7.7E-01	1.8E+00 (G)	2.3E+00	1.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	5.2E+01	7.5E+01 (N)	1.5E+02	7.5E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	2.5E+00	4.0E+00 (G)	6.9E+00 J	4.0E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	4.9E+01	6.4E+01 (N)	9.1E+01	6.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.8E+03	2.4E+03 (N)	2.9E+03	2.4E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	1.1E+00	1.5E+00 (N)	2.2E+00 J	1.5E+00	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station WS/WSS									
	Antimony	mg/kg	4.0E+00	4.9E+00 (N)	7.2E+00 J	4.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.7E+02	2.3E+02 (N)	3.4E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.2E+02	1.4E+02 (N)	2.0E+02	1.4E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.1E+00	1.1E+01 (N)	1.7E+01	1.1E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.0E+02	7.3E+02 (N)	1.3E+03	7.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.1E+02	4.1E+02 (N)	6.9E+02	4.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.9E+02	3.7E+02 (N)	4.9E+02	3.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.0E+03	1.2E+03 (N)	1.4E+03 J	1.2E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	9.8E-01	1.4E+00 (N)	1.8E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	3.0E+01	3.6E+01 (N)	4.6E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.6E-01	1.1E+00 (N)	2.2E+00 J	1.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	3.7E+01	4.5E+01 (N)	5.6E+01	4.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.5E+03	2.0E+03 (N)	3.4E+03	2.0E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	6.6E-01	9.5E-01 (N)	1.7E+00 J	9.5E-01	mg/kg	95% UCL - N	(d)
Station TT-30									
	Arsenic	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(c)
	Barium	mg/kg	3.3E+01	N/A (<4)	3.3E+01 J	3.3E+01	mg/kg	Max	(c)
	Cadmium	mg/kg	7.1E+00	N/A (<4)	7.1E+00 J	7.1E+00	mg/kg	Max	(c)
	Chromium	mg/kg	5.3E+03	N/A (<4)	5.3E+03 J	5.3E+03	mg/kg	Max	(c)
	Copper	mg/kg	3.8E+03	N/A (<4)	3.8E+03 J	3.8E+03	mg/kg	Max	(c)
	Lead	mg/kg	4.3E+02	N/A (<4)	4.3E+02 J	4.3E+02	mg/kg	Max	(c)
	Manganese	mg/kg	2.1E+02	N/A (<4)	2.1E+02 J	2.1E+02	mg/kg	Max	(c)
	Mercury	mg/kg	8.9E+01	N/A (<4)	8.9E+01 J	8.9E+01	mg/kg	Max	(c)
	Nickel	mg/kg	8.0E+00	N/A (<4)	8.0E+00	8.0E+00	mg/kg	Max	(c)
	Thallium	mg/kg	1.5E+00	N/A (<4)	1.5E+00	1.5E+00	mg/kg	Max	(c)
	Vanadium	mg/kg	2.1E+01	N/A (<4)	2.1E+01	2.1E+01	mg/kg	Max	(c)
	Zinc	mg/kg	1.2E+03	N/A (<4)	1.2E+03	1.2E+03	mg/kg	Max	(c)
	Chromium VI	mg/kg	6.9E+00	N/A (<4)	6.9E+00 J	6.9E+00	mg/kg	Max	(c)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station TT-31									
	Arsenic	mg/kg	1.7E+01	N/A (<4)	3.0E+01 J	1.7E+01	mg/kg	Mean	(b)
	Barium	mg/kg	9.1E+01	N/A (<4)	1.6E+02 J	9.1E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	4.2E+00	N/A (<4)	5.5E+00 J	4.2E+00	mg/kg	Mean	(b)
	Chromium	mg/kg	1.9E+02	N/A (<4)	3.0E+02 J	1.9E+02	mg/kg	Mean	(b)
	Copper	mg/kg	1.1E+02	N/A (<4)	1.8E+02 J	1.1E+02	mg/kg	Mean	(b)
	Lead	mg/kg	2.8E+02	N/A (<4)	3.3E+02 J	2.8E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	5.9E+02	N/A (<4)	1.2E+03 J	5.9E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	1.4E+00	N/A (<4)	1.8E+00 J	1.4E+00	mg/kg	Mean	(b)
	Nickel	mg/kg	2.6E+01	N/A (<4)	3.6E+01	2.6E+01	mg/kg	Mean	(b)
	Vanadium	mg/kg	4.6E+01	N/A (<4)	5.7E+01 J	4.6E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	4.6E+02	N/A (<4)	6.8E+02	4.6E+02	mg/kg	Mean	(b)
Station CB-01									
	Antimony	mg/kg	1.2E+00	2.0E+00 (G)	4.0E+00 J	2.0E+00	mg/kg	95% UCL - G	(h)
	Arsenic	mg/kg	4.1E+01	5.8E+01 (N)	9.9E+01 J	5.8E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.9E+01 (N)	1.1E+02	5.9E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.2E+00	9.3E+00 (G)	1.6E+01 J	9.3E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.2E+02	3.3E+02 (N)	5.8E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.9E+02	7.5E+02 (G)	1.1E+03 J	7.5E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	3.2E+02	4.4E+02 (N)	6.5E+02 J	4.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.4E+02	6.9E+02 (G)	1.3E+03 J	6.9E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.5E+00	2.9E+00 (G)	4.8E+00 J	2.9E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.2E+00	2.0E+01 (NP)	3.2E+01 J	2.0E+01	mg/kg	95% UCL - NP	(f)
	Thallium	mg/kg	1.0E+00	2.5E+00 (T)	3.1E+00	2.5E+00	mg/kg	95% UCL - T	(e)
	Vanadium	mg/kg	5.4E+01	7.9E+01 (G)	1.1E+02	7.9E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	4.2E+02	6.4E+02 (N)	1.2E+03	6.4E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-02									
	Antimony	mg/kg	1.5E+00	1.8E+00 (N)	2.0E+00 J	1.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.7E+01	4.1E+01 (G)	5.6E+01 J	4.1E+01	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	7.9E+01	1.7E+02 (T)	3.9E+02	1.7E+02	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	3.1E+00	3.8E+00 (N)	5.8E+00 J	3.8E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.1E+02	1.4E+02 (N)	2.5E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.5E+01	9.8E+01 (G)	1.7E+02	9.8E+01	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	1.2E+02	2.4E+02 (NP)	3.4E+02 J	2.4E+02	mg/kg	95% UCL - NP	(f)
	Manganese	mg/kg	5.6E+01	7.2E+01 (G)	1.1E+02 J	7.2E+01	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	2.4E-01	3.3E-01 (G)	5.8E-01	3.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	8.3E+00	1.0E+01 (N)	1.3E+01 J	1.0E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.7E+01	3.2E+01 (N)	4.6E+01	3.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.5E+02	3.1E+02 (N)	4.5E+02 J	3.1E+02	mg/kg	95% UCL - N	(d)
Station CB-03									
	Antimony	mg/kg	1.5E+00	6.8E+00 (NP)	4.8E+00 J	1.5E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	2.7E+02	5.9E+02 (G)	1.4E+03	5.9E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	5.2E+01	6.7E+01 (N)	9.6E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.4E+00	1.3E+01 (G)	2.3E+01 J	1.3E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.6E+02	1.3E+03 (NP)	7.7E+02	4.6E+02	mg/kg	Mean	(b)
	Copper	mg/kg	2.7E+02	3.8E+02 (N)	6.7E+02 J	3.8E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.0E+02	2.7E+02 (N)	4.4E+02 J	2.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.8E+02	4.6E+02 (G)	9.9E+02	4.6E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.2E+00	2.5E+00 (G)	3.6E+00	2.5E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.6E+01	3.7E+01 (G)	7.8E+01 J	3.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	7.1E-01	9.7E-01 (N)	1.5E+00 J	9.7E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	6.2E+01 (N)	9.7E+01 J	6.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.1E+03	2.1E+03 (G)	5.3E+03	2.1E+03	mg/kg	95% UCL - G	(h)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-04									
	Antimony	mg/kg	3.6E+00	4.8E+00 (N)	7.2E+00	4.8E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.1E+02	1.8E+02 (G)	3.3E+02	1.8E+02	mg/kg	95% UCL - G	(h)
	Barium	mg/kg	6.1E+01	7.7E+01 (N)	1.1E+02	7.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	4.0E+00	5.7E+00 (N)	8.9E+00	5.7E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.7E+02	2.7E+02 (G)	5.7E+02	2.7E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.6E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.1E+02	2.8E+02 (N)	4.1E+02	2.8E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	4.0E+02	1.4E+03 (NP)	2.4E+03	1.4E+03	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	7.3E-01	1.2E+00 (G)	2.2E+00	1.2E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	4.1E+01	7.7E+01 (G)	1.8E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.1E+00	6.5E+00 (NP)	5.3E+00	1.1E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	5.5E+01	6.8E+01 (N)	8.5E+01	6.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	3.1E+03 (T)	8.8E+03	3.1E+03	mg/kg	95% UCL - T	(e)
Station CB-06									
	Antimony	mg/kg	1.7E+00	4.7E+00 (NP)	7.8E+00	4.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	9.8E+01	1.4E+02 (N)	2.6E+02 J	1.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.0E+01	5.1E+01 (N)	6.0E+01	5.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	8.6E+00	1.7E+01 (G)	3.5E+01	1.7E+01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	2.8E+02	5.0E+02 (G)	9.7E+02	5.0E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.8E+02	2.4E+02 (N)	3.9E+02	2.4E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.4E+02	1.9E+02 (N)	3.3E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+01	9.4E+01 (N)	1.3E+02 J	9.4E+01	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.3E-01	3.4E-01 (N)	5.6E-01	3.4E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.9E+01	2.8E+01 (G)	4.9E+01	2.8E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	3.2E+00	4.1E+00 (N)	6.1E+00	4.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.3E+01	7.2E+01 (N)	1.0E+02	7.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.4E+03	2.1E+03 (N)	3.8E+03 J	2.1E+03	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	3.6E-01	6.5E-01 (G)	1.3E+00 J	6.5E-01	mg/kg	95% UCL - G	(h)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station CB-07									
	Arsenic	mg/kg	9.1E+01	2.1E+02 (N)	2.3E+02 J	2.1E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.2E+01	5.6E+01 (N)	5.7E+01	5.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	2.0E+00	4.9E+00 (N)	5.6E+00	4.9E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	3.3E+02	7.1E+02 (N)	7.8E+02	7.1E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	8.7E+02 (G)	4.4E+02	1.6E+02	mg/kg	Mean	(b)
	Lead	mg/kg	1.5E+02	3.4E+02 (N)	3.8E+02	3.4E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.3E+02	6.7E+02 (N)	6.5E+02 J	3.3E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	5.6E-01	1.3E+00 (N)	1.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.4E+01	2.2E+01 (N)	2.3E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.7E+01	9.2E+01 (N)	1.0E+02	9.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.0E+02	6.2E+02 (N)	6.7E+02 J	6.2E+02	mg/kg	95% UCL - N	(d)
Station 16/TT-33									
	Benzo(a)anthracene	mg/kg	2.4E-01	3.9E-01 (N)	1.1E-01 J	1.1E-01	mg/kg	Max	(c)
	Benzo(a)pyrene	mg/kg	2.5E-01	3.9E-01 (N)	1.4E-01 J	1.4E-01	mg/kg	Max	(c)
	Benzo(b)fluoranthene	mg/kg	2.3E-01	4.2E-01 (N)	2.6E-01	2.3E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.9E-01	3.9E-01 (N)	9.9E-02 J	9.9E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	2.3E-01	4.0E-01 (N)	6.0E-02 J	6.0E-02	mg/kg	Max	(c)
	Phenanthrene	mg/kg	2.4E-01	3.9E-01 (N)	1.3E-01 J	1.3E-01	mg/kg	Max	(c)
	Antimony	mg/kg	3.4E+00	5.9E+00 (N)	9.1E+00 J	5.9E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	1.4E+02	2.4E+02 (N)	2.9E+02 J	2.4E+02	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	4.2E+01	6.2E+01 (N)	7.8E+01	6.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.6E+00 (N)	7.4E+00 J	5.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.7E+02	4.2E+03 (G)	2.2E+03 J	5.7E+02	mg/kg	Mean	(b)
	Copper	mg/kg	2.4E+02	4.0E+02 (N)	4.9E+02 J	4.0E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	1.2E+02	2.0E+02 (N)	2.9E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.9E+02	8.8E+02 (G)	7.8E+02	3.9E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	1.9E+00	3.4E+00 (N)	5.6E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	1.0E+01	1.5E+01 (N)	2.2E+01	1.5E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.0E+01	3.1E+01 (N)	4.2E+01	3.1E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.8E+02	9.3E+02 (N)	1.1E+03 J	9.3E+02	mg/kg	95% UCL - N	(d)
	Chromium VI	mg/kg	7.4E-01	5.4E+00 (G)	2.9E+00 J	7.4E-01	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 09									
	Benzo(a)anthracene	mg/kg	2.1E-01	4.8E-01 (T)	1.0E+00	4.8E-01	mg/kg	95% UCL - T	(e)
	Benzo(a)pyrene	mg/kg	2.1E-01	5.0E-01 (T)	1.1E+00	5.0E-01	mg/kg	95% UCL - T	(e)
	Benzo(b)fluoranthene	mg/kg	4.0E-01	1.3E+00 (NP)	2.3E+00	1.3E+00	mg/kg	95% UCL - NP	(f)
	Benzo(k)fluoranthene	mg/kg	3.6E-01	1.2E+00 (NP)	2.1E+00	1.2E+00	mg/kg	95% UCL - NP	(f)
	Dibenz(a,h)anthracene	mg/kg	2.1E-01	2.3E-01 (NP)	8.0E-02 J	8.0E-02	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E-01	2.5E-01 (N)	3.7E-01 J	2.5E-01	mg/kg	95% UCL - N	(d)
	Phenanthrene	mg/kg	3.1E-01	2.1E+00 (NP)	1.9E+00	3.1E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	8.1E-01	1.0E+00 (N)	1.3E+00	1.0E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	2.9E+01	3.5E+01 (N)	4.9E+01 J	3.5E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	2.1E+01	3.3E+01 (G)	7.4E+01	3.3E+01	mg/kg	95% UCL - G	(h)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (G)	1.2E+00 J	6.8E-01	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	4.5E+01	5.9E+01 (N)	9.2E+01 J	5.9E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.7E+01	6.3E+01 (N)	1.0E+02 J	6.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+01	4.4E+01 (N)	8.7E+01	4.4E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	2.9E+03 (NP)	2.6E+03 J	3.6E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	2.6E-01	3.9E-01 (N)	6.8E-01 J	3.9E-01	mg/kg	95% UCL - N	(d)
	Nickel	mg/kg	8.0E+00	9.7E+00 (G)	1.3E+01	9.7E+00	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	9.2E-01	1.3E+00 (N)	2.4E+00	1.3E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.1E+01	1.4E+01 (N)	1.9E+01	1.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+02	2.4E+02 (G)	4.8E+02 J	2.4E+02	mg/kg	95% UCL - G	(h)
Station AM									
	Antimony	mg/kg	2.0E+00	N/A (<4)	2.0E+00 J	2.0E+00	mg/kg	Max	(c)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Max	(c)
	Barium	mg/kg	5.8E+01	N/A (<4)	5.8E+01	5.8E+01	mg/kg	Max	(c)
	Cadmium	mg/kg	3.9E+00	N/A (<4)	3.9E+00	3.9E+00	mg/kg	Max	(c)
	Chromium	mg/kg	3.2E+02	N/A (<4)	3.2E+02	3.2E+02	mg/kg	Max	(c)
	Copper	mg/kg	2.0E+02	N/A (<4)	2.0E+02	2.0E+02	mg/kg	Max	(c)
	Lead	mg/kg	1.5E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(c)
	Manganese	mg/kg	1.1E+03	N/A (<4)	1.1E+03 J	1.1E+03	mg/kg	Max	(c)
	Mercury	mg/kg	1.9E+00	N/A (<4)	1.9E+00	1.9E+00	mg/kg	Max	(c)
	Nickel	mg/kg	1.8E+01	N/A (<4)	1.8E+01 J	1.8E+01	mg/kg	Max	(c)
	Thallium	mg/kg	4.4E-01	N/A (<4)	4.4E-01 J	4.4E-01	mg/kg	Max	(c)
	Vanadium	mg/kg	2.7E+01	N/A (<4)	2.7E+01	2.7E+01	mg/kg	Max	(c)
	Zinc	mg/kg	9.4E+02	N/A (<4)	9.4E+02	9.4E+02	mg/kg	Max	(c)

US EPA ARCHIVE DOCUMENT

TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station KF									
	Arsenic	mg/kg	3.8E+01	5.2E+01 (N)	9.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	3.3E+01	4.1E+01 (N)	5.5E+01	4.1E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	5.6E-01	1.0E+00 (G)	1.1E+00	1.0E+00	mg/kg	95% UCL - G	(h)
	Chromium	mg/kg	6.7E+01	8.8E+01 (N)	1.1E+02	8.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	7.9E+01	1.1E+02 (N)	1.9E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	9.7E+01	1.3E+02 (N)	1.9E+02	1.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.9E+02	3.6E+02 (N)	5.0E+02	3.6E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.1E-01	8.9E-01 (G)	1.6E+00 J	8.9E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	6.7E+00	9.0E+00 (N)	1.3E+01	9.0E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.3E+01 (N)	3.0E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.8E+02	3.5E+02 (N)	4.6E+02	3.5E+02	mg/kg	95% UCL - N	(d)
Station 08									
	Benzo(a)anthracene	mg/kg	4.8E-01	N/A (<4)	6.8E-01	4.8E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	6.3E-01	N/A (<4)	9.4E-01	6.3E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	1.3E+00	N/A (<4)	1.9E+00	1.3E+00	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.4E+00	N/A (<4)	2.0E+00	1.4E+00	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	9.3E-02	N/A (<4)	1.6E-01 J	9.3E-02	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	4.0E-01	N/A (<4)	6.8E-01	4.0E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.8E-01	N/A (<4)	6.1E-01	4.8E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	1.0E+00	N/A (<4)	1.6E+00	1.0E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	1.9E+01	N/A (<4)	2.9E+01 J	1.9E+01	mg/kg	Mean	(b)
	Barium	mg/kg	1.9E+01	N/A (<4)	2.1E+01	1.9E+01	mg/kg	Mean	(b)
	Chromium	mg/kg	5.4E+01	N/A (<4)	1.2E+02 J	5.4E+01	mg/kg	Mean	(b)
	Copper	mg/kg	7.4E+01	N/A (<4)	1.3E+02 J	7.4E+01	mg/kg	Mean	(b)
	Lead	mg/kg	4.3E+01	N/A (<4)	7.1E+01	4.3E+01	mg/kg	Mean	(b)
	Manganese	mg/kg	1.6E+02	N/A (<4)	2.3E+02 J	1.6E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	4.6E-01	N/A (<4)	1.0E+00 J	4.6E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.0E+01	1.2E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	1.4E+00	N/A (<4)	1.7E+00	1.4E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.5E+01	N/A (<4)	1.8E+01	1.5E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	3.5E+02	N/A (<4)	5.4E+02 J	3.5E+02	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 07/DP									
	Trichloroethene	mg/kg	1.5E-02	2.2E-02 (G)	3.5E-02 J	2.2E-02	mg/kg	95% UCL - G	(h)
	Benzo(a)anthracene	mg/kg	3.8E+00	5.6E+00 (N)	9.6E+00	5.6E+00	mg/kg	95% UCL - N	(d)
	Benzo(a)pyrene	mg/kg	3.8E+00	5.5E+00 (N)	1.0E+01	5.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(b)fluoranthene	mg/kg	6.6E+00	9.5E+00 (N)	1.6E+01 J	9.5E+00	mg/kg	95% UCL - N	(d)
	Benzo(k)fluoranthene	mg/kg	5.0E+00	9.2E+00 (G)	1.4E+01 J	9.2E+00	mg/kg	95% UCL - G	(h)
	Dibenz(a,h)anthracene	mg/kg	5.5E-01	1.1E+00 (G)	2.0E+00	1.1E+00	mg/kg	95% UCL - G	(h)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.9E+00	3.9E+00 (G)	6.9E+00	3.9E+00	mg/kg	95% UCL - G	(h)
	Phenanthrene	mg/kg	3.7E+00	6.8E+00 (G)	1.2E+01	6.8E+00	mg/kg	95% UCL - G	(h)
	Aroclor 1260	mg/kg	5.1E-02	6.6E-02 (N)	7.4E-02	6.6E-02	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	1.9E+00	2.3E+00 (N)	3.1E+00	2.3E+00	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.7E+01	8.0E+01 (N)	1.3E+02 J	8.0E+01	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	6.4E+01	8.4E+01 (N)	1.2E+02	8.4E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	3.3E+00	5.1E+00 (N)	1.0E+01	5.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.8E+02	2.5E+02 (N)	4.4E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.6E+02	2.3E+02 (N)	3.8E+02 J	2.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.5E+02	3.5E+02 (N)	4.8E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.2E+02	4.2E+02 (N)	6.0E+02 J	4.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.4E+00	2.8E+00 (G)	5.7E+00 J	2.8E+00	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	2.2E+01	2.7E+01 (N)	3.8E+01	2.7E+01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	2.2E+00 (N)	3.8E+00	2.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.0E+01	5.2E+01 (N)	7.9E+01	5.2E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	9.3E+02	1.3E+03 (N)	2.5E+03 J	1.3E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station LP									
	Antimony	mg/kg	1.2E+00	1.7E+00 (NP)	5.1E+00 J	1.7E+00	mg/kg	95% UCL - NP	(f)
	Arsenic	mg/kg	7.0E+01	1.5E+02 (T)	4.9E+02 J	1.5E+02	mg/kg	95% UCL - T	(e)
	Barium	mg/kg	3.0E+01	3.7E+01 (N)	6.9E+01	3.7E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.9E+00	2.6E+00 (N)	5.6E+00 J	2.6E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.2E+01	7.7E+01 (G)	1.3E+02	7.7E+01	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	1.9E+02	3.7E+02 (G)	1.6E+03 J	3.7E+02	mg/kg	95% UCL - G	(h)
	Lead	mg/kg	8.3E+01	1.4E+02 (G)	4.0E+02 J	1.4E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.7E+02	2.1E+02 (N)	3.3E+02	2.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.6E-01	7.3E-01 (G)	1.4E+00	7.3E-01	mg/kg	95% UCL - G	(h)
	Nickel	mg/kg	9.7E+00	1.4E+01 (G)	3.1E+01	1.4E+01	mg/kg	95% UCL - G	(h)
	Thallium	mg/kg	1.6E+00	1.9E+00 (N)	2.9E+00 J	1.9E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.6E+01	2.1E+01 (G)	4.0E+01	2.1E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	7.0E+02	1.3E+03 (G)	2.8E+03	1.3E+03	mg/kg	95% UCL - G	(h)
Station AS									
	Antimony	mg/kg	2.5E+00	N/A (<4)	2.9E+00 J	2.5E+00	mg/kg	Mean	(b)
	Arsenic	mg/kg	1.2E+02	N/A (<4)	1.2E+02	1.2E+02	mg/kg	Mean	(b)
	Barium	mg/kg	1.0E+02	N/A (<4)	1.1E+02	1.0E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.2E+01	N/A (<4)	1.3E+01	1.2E+01	mg/kg	Mean	(b)
	Chromium	mg/kg	7.5E+02	N/A (<4)	9.2E+02	7.5E+02	mg/kg	Mean	(b)
	Copper	mg/kg	5.1E+02	N/A (<4)	5.8E+02	5.1E+02	mg/kg	Mean	(b)
	Lead	mg/kg	5.7E+02	N/A (<4)	6.6E+02	5.7E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	3.8E+02	N/A (<4)	3.8E+02 J	3.8E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	3.1E+00	N/A (<4)	3.1E+00	3.1E+00	mg/kg	Mean	(b)
	Nickel	mg/kg	3.7E+01	N/A (<4)	3.9E+01 J	3.7E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	1.1E+00	N/A (<4)	1.2E+00 J	1.1E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	6.6E+01	N/A (<4)	7.3E+01	6.6E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	2.2E+03	N/A (<4)	2.3E+03	2.2E+03	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 05									
	Benzo(a)anthracene	mg/kg	4.3E-01	N/A (<4)	2.3E+00 J	4.3E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	3.5E-01	N/A (<4)	2.5E+00 J	3.5E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	3.5E-01	N/A (<4)	3.0E+00 J	3.5E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	2.5E-01	N/A (<4)	1.9E+00 J	2.5E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.7E-01	N/A (<4)	1.2E+00 J	1.7E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	6.8E-01	N/A (<4)	2.2E+00 J	6.8E-01	mg/kg	Mean	(b)
	Antimony	mg/kg	9.4E-01	N/A (<4)	1.8E+00 J	9.4E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	8.3E+00	N/A (<4)	2.5E+01	8.3E+00	mg/kg	Mean	(b)
	Barium	mg/kg	3.5E+01	N/A (<4)	4.3E+01	3.5E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	2.2E-01	N/A (<4)	1.6E+00	2.2E-01	mg/kg	Mean	(b)
	Chromium	mg/kg	3.4E+01	N/A (<4)	1.5E+02	3.4E+01	mg/kg	Mean	(b)
	Copper	mg/kg	2.5E+01	N/A (<4)	8.0E+01	2.5E+01	mg/kg	Mean	(b)
	Lead	mg/kg	2.7E+02	N/A (<4)	1.5E+02	1.5E+02	mg/kg	Max	(c)
	Manganese	mg/kg	4.2E+02	N/A (<4)	9.5E+02	4.2E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	9.0E-02	N/A (<4)	1.2E+00 J	9.0E-02	mg/kg	Mean	(b)
	Nickel	mg/kg	1.0E+01	N/A (<4)	1.1E+01	1.0E+01	mg/kg	Mean	(b)
	Thallium	mg/kg	6.1E-01	N/A (<4)	9.7E-01	6.1E-01	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.9E+01	N/A (<4)	1.9E+01	1.9E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	1.2E+02	N/A (<4)	5.7E+02	1.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 03									
	Benzo(a)anthracene	mg/kg	5.7E-01	N/A (<4)	1.3E+00	5.7E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	4.7E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	6.0E-01	N/A (<4)	1.4E+00	6.0E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	3.5E-01	N/A (<4)	6.4E-01	3.5E-01	mg/kg	Mean	(b)
	Dibenz(a,h)anthracene	mg/kg	1.7E-01	N/A (<4)	1.1E-01	1.1E-01	mg/kg	Max	(c)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.4E-01	N/A (<4)	6.2E-01	3.4E-01	mg/kg	Mean	(b)
	Phenanthrene	mg/kg	4.7E-01	N/A (<4)	1.0E+00	4.7E-01	mg/kg	Mean	(b)
	Aroclor 1260	mg/kg	5.0E-02	N/A (<4)	1.1E-01	5.0E-02	mg/kg	Mean	(b)
	Antimony	mg/kg	8.0E-01	N/A (<4)	1.7E+00 J	8.0E-01	mg/kg	Mean	(b)
	Arsenic	mg/kg	3.3E+01	N/A (<4)	8.7E+01	3.3E+01	mg/kg	Mean	(b)
	Barium	mg/kg	3.5E+01	N/A (<4)	8.5E+01	3.5E+01	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.7E+00	N/A (<4)	5.2E+00	1.7E+00	mg/kg	Mean	(b)
	Chromium	mg/kg	7.3E+01	N/A (<4)	2.0E+02 J	7.3E+01	mg/kg	Mean	(b)
	Copper	mg/kg	6.2E+01	N/A (<4)	1.7E+02	6.2E+01	mg/kg	Mean	(b)
	Lead	mg/kg	1.2E+02	N/A (<4)	3.5E+02 J	1.2E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	2.1E+02	N/A (<4)	5.0E+02	2.1E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	2.6E-01	N/A (<4)	7.1E-01	2.6E-01	mg/kg	Mean	(b)
	Nickel	mg/kg	1.2E+01	N/A (<4)	2.7E+01 J	1.2E+01	mg/kg	Mean	(b)
	Vanadium	mg/kg	2.2E+01	N/A (<4)	4.9E+01	2.2E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	5.2E+02	N/A (<4)	1.4E+03 J	5.2E+02	mg/kg	Mean	(b)

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TABLE 3-3.3.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station 01									
	Benzo(a)anthracene	mg/kg	1.9E-01	2.5E-01 (N)	2.5E-01 J	1.9E-01	mg/kg	Mean	(b)
	Benzo(a)pyrene	mg/kg	1.7E-01	2.4E-01 (NP)	2.1E-01 J	1.7E-01	mg/kg	Mean	(b)
	Benzo(b)fluoranthene	mg/kg	1.7E-01	2.2E-01 (N)	1.7E-01 J	1.7E-01	mg/kg	Mean	(b)
	Benzo(k)fluoranthene	mg/kg	1.8E-01	2.4E-01 (NP)	2.1E-01 J	1.8E-01	mg/kg	Mean	(b)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.8E-01	2.2E-01 (N)	1.2E-01 J	1.2E-01	mg/kg	Max	(c)
	Phenanthrene	mg/kg	3.0E-01	4.6E-01 (N)	5.0E-01 J	4.6E-01	mg/kg	95% UCL - N	(d)
	Antimony	mg/kg	4.9E-01	8.8E-01 (N)	9.4E-01 J	8.8E-01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	4.6E+00	6.2E+00 (N)	6.2E+00	6.2E+00	mg/kg	95% UCL - N	(d)
	Barium	mg/kg	1.1E+01	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.8E-02	1.7E-01 (N)	1.8E-01	1.7E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	8.3E+00	1.0E+01 (N)	9.8E+00	8.3E+00	mg/kg	Mean	(b)
	Copper	mg/kg	1.2E+01	1.7E+01 (N)	1.7E+01	1.2E+01	mg/kg	Mean	(b)
	Lead	mg/kg	1.9E+01	3.6E+01 (N)	4.0E+01 J	3.6E+01	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	8.2E+01	1.0E+02 (N)	1.0E+02	8.2E+01	mg/kg	Mean	(b)
	Nickel	mg/kg	6.4E+00	7.6E+00 (N)	7.2E+00	6.4E+00	mg/kg	Mean	(b)
	Thallium	mg/kg	4.0E-01	5.2E-01 (N)	5.4E-01	5.2E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	9.6E+00	1.2E+01 (N)	1.2E+01	9.6E+00	mg/kg	Mean	(b)
	Zinc	mg/kg	1.0E+02	1.6E+02 (N)	1.5E+02	1.0E+02	mg/kg	Mean	(b)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.2 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.4.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.1E+02	2.0E+02 (N)	2.7E+02	2.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	9.8E-01	2.1E+00 (N)	3.0E+00	2.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	9.8E+01	1.7E+02 (N)	2.3E+02	1.7E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.7E+01	1.7E+02 (N)	2.3E+02	1.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.1E+02	8.8E+02 (G)	8.3E+02	8.3E+02	mg/kg	Max	(g)
	Mercury	mg/kg	8.0E-01	2.0E+00 (G)	2.0E+00	2.0E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	1.6E+01	2.5E+01 (N)	3.2E+01	2.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.9E+02	5.3E+02 (N)	7.1E+02 J	5.3E+02	mg/kg	95% UCL - N	(d)
Station WS/WSS									
	Arsenic	mg/kg	8.9E+00	1.0E+01 (T)	1.1E+01	1.0E+01	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	2.0E-01	4.6E-01 (NP)	3.7E-01 J	3.7E-01	mg/kg	Max	(g)
	Chromium	mg/kg	1.3E+01	1.8E+01 (N)	2.0E+01	1.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.7E+01	3.4E+01 (N)	3.4E+01 J	3.4E+01	mg/kg	Max	(g)
	Manganese	mg/kg	1.5E+02	1.9E+02 (N)	2.0E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.0E-01	1.2E-01 (N)	1.3E-01 J	1.2E-01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.7E-01	1.2E+00 (N)	1.5E+00 J	1.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.4E+01 (N)	2.4E+01	2.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.4E+01	7.2E+01 (N)	8.2E+01 J	7.2E+01	mg/kg	95% UCL - N	(d)
Station CB-05									
	Arsenic	mg/kg	3.0E+01	6.0E+01 (NP)	8.6E+01	6.0E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (N)	1.1E+00	6.8E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+01	1.4E+02 (T)	2.1E+02	1.4E+02	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	4.0E+01	5.0E+01 (T)	8.3E+01	5.0E+01	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	1.9E+02	2.3E+02 (N)	3.1E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.7E-01	2.9E-01 (T)	6.0E-01	2.9E-01	mg/kg	95% UCL - T	(e)
	Thallium	mg/kg	7.8E-01	1.6E+00 (NP)	1.9E+00 J	1.6E+00	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	2.3E+01	2.6E+01 (N)	3.5E+01	2.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.3E+02	1.7E+02 (N)	2.6E+02	1.7E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.4.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station DA									
	Arsenic	mg/kg	9.9E+01	2.0E+02 (N)	2.7E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.4E+00	6.9E+00 (G)	4.6E+00 J	4.6E+00	mg/kg	Max	(g)
	Chromium	mg/kg	1.9E+02	3.9E+02 (N)	5.5E+02 J	3.9E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.5E+02	2.5E+02 (N)	3.2E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+02	4.9E+03 (G)	2.9E+03	2.9E+03	mg/kg	Max	(g)
	Mercury	mg/kg	1.2E+00	3.8E+00 (G)	3.4E+00	3.4E+00	mg/kg	Max	(g)
	Thallium	mg/kg	1.5E+00	3.3E+00 (G)	3.4E+00	3.3E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	2.7E+01	3.8E+01 (N)	4.2E+01	3.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.7E+02	5.9E+02 (N)	8.4E+02	5.9E+02	mg/kg	95% UCL - N	(d)
Station KF									
	Arsenic	mg/kg	4.0E+01	4.6E+01 (N)	5.5E+01	4.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	2.1E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.0E+02	1.2E+02 (N)	1.4E+02	1.2E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.1E+01	1.1E+02 (N)	1.4E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	6.4E+02	8.3E+02 (N)	1.3E+03	8.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.9E-01	6.9E-01 (N)	8.6E-01 J	6.9E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.5E+01	2.9E+01 (N)	3.7E+01	2.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.3E+02	3.9E+02 (N)	4.9E+02	3.9E+02	mg/kg	95% UCL - N	(d)
Station 07/DP									
	Arsenic	mg/kg	3.3E+01	4.5E+01 (T)	2.2E+02	4.5E+01	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	9.0E-02	1.9E-01 (NP)	6.5E-01 J	1.9E-01	mg/kg	95% UCL - NP	(f)
	Chromium	mg/kg	1.1E+02	1.4E+02 (G)	3.2E+02 J	1.4E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	8.0E+01	1.0E+02 (G)	3.0E+02	1.0E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	2.6E+02	3.3E+02 (G)	8.2E+02	3.3E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	7.7E-01	9.6E-01 (N)	2.4E+00	9.6E-01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	1.9E+00 (NP)	3.6E+00 J	1.9E+00	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	2.8E+01	3.1E+01 (G)	5.8E+01	3.1E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	1.9E+03	1.9E+04 (NP)	4.5E+04	1.9E+04	mg/kg	95% UCL - NP	(f)

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TABLE 3-3.4.RME

EXPOSURE POINT CONCENTRATION SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future

Medium: Soil

Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.3 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.4.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station NR									
	Arsenic	mg/kg	1.1E+02	2.0E+02 (N)	2.7E+02	2.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	9.8E-01	2.1E+00 (N)	3.0E+00	2.1E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	9.8E+01	1.7E+02 (N)	2.3E+02	1.7E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.7E+01	1.7E+02 (N)	2.3E+02	1.7E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.1E+02	8.8E+02 (G)	8.3E+02	3.1E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	8.0E-01	2.0E+00 (G)	2.0E+00	8.0E-01	mg/kg	Mean	(b)
	Vanadium	mg/kg	1.6E+01	2.5E+01 (N)	3.2E+01	2.5E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.9E+02	5.3E+02 (N)	7.1E+02 J	5.3E+02	mg/kg	95% UCL - N	(d)
Station WS/WSS									
	Arsenic	mg/kg	8.9E+00	1.0E+01 (T)	1.1E+01	1.0E+01	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	2.0E-01	4.6E-01 (NP)	3.7E-01 J	2.0E-01	mg/kg	Mean	(b)
	Chromium	mg/kg	1.3E+01	1.8E+01 (N)	2.0E+01	1.8E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	2.7E+01	3.4E+01 (N)	3.4E+01 J	2.7E+01	mg/kg	Mean	(b)
	Manganese	mg/kg	1.5E+02	1.9E+02 (N)	2.0E+02	1.9E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.0E-01	1.2E-01 (N)	1.3E-01 J	1.2E-01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	7.7E-01	1.2E+00 (N)	1.5E+00 J	1.2E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	1.9E+01	2.4E+01 (N)	2.4E+01	2.4E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	5.4E+01	7.2E+01 (N)	8.2E+01 J	7.2E+01	mg/kg	95% UCL - N	(d)
Station CB-05									
	Arsenic	mg/kg	3.0E+01	6.0E+01 (NP)	8.6E+01	6.0E+01	mg/kg	95% UCL - NP	(f)
	Cadmium	mg/kg	4.9E-01	6.8E-01 (N)	1.1E+00	6.8E-01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	5.6E+01	1.4E+02 (T)	2.1E+02	1.4E+02	mg/kg	95% UCL - T	(e)
	Copper	mg/kg	4.0E+01	5.0E+01 (T)	8.3E+01	5.0E+01	mg/kg	95% UCL - T	(e)
	Manganese	mg/kg	1.9E+02	2.3E+02 (N)	3.1E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.7E-01	2.9E-01 (T)	6.0E-01	2.9E-01	mg/kg	95% UCL - T	(e)
	Thallium	mg/kg	7.8E-01	1.6E+00 (NP)	1.9E+00 J	1.6E+00	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	2.3E+01	2.6E+01 (N)	3.5E+01	2.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.3E+02	1.7E+02 (N)	2.6E+02	1.7E+02	mg/kg	95% UCL - N	(d)

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TABLE 3-3.4.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Station DA									
	Arsenic	mg/kg	9.9E+01	2.0E+02 (N)	2.7E+02 J	2.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.4E+00	6.9E+00 (G)	4.6E+00 J	1.4E+00	mg/kg	Mean	(b)
	Chromium	mg/kg	1.9E+02	3.9E+02 (N)	5.5E+02 J	3.9E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	1.5E+02	2.5E+02 (N)	3.2E+02 J	2.5E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	7.9E+02	4.9E+03 (G)	2.9E+03	7.9E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	1.2E+00	3.8E+00 (G)	3.4E+00	1.2E+00	mg/kg	Mean	(b)
	Thallium	mg/kg	1.5E+00	3.3E+00 (G)	3.4E+00	3.3E+00	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	2.7E+01	3.8E+01 (N)	4.2E+01	3.8E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.7E+02	5.9E+02 (N)	8.4E+02	5.9E+02	mg/kg	95% UCL - N	(d)
Station KF									
	Arsenic	mg/kg	4.0E+01	4.6E+01 (N)	5.5E+01	4.6E+01	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.0E+00	1.4E+00 (N)	2.1E+00 J	1.4E+00	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	1.0E+02	1.2E+02 (N)	1.4E+02	1.2E+02	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.1E+01	1.1E+02 (N)	1.4E+02	1.1E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	6.4E+02	8.3E+02 (N)	1.3E+03	8.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.9E-01	6.9E-01 (N)	8.6E-01 J	6.9E-01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	2.5E+01	2.9E+01 (N)	3.7E+01	2.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	3.3E+02	3.9E+02 (N)	4.9E+02	3.9E+02	mg/kg	95% UCL - N	(d)
Station 07/DP									
	Arsenic	mg/kg	3.3E+01	4.5E+01 (T)	2.2E+02	4.5E+01	mg/kg	95% UCL - T	(e)
	Cadmium	mg/kg	9.0E-02	1.9E-01 (NP)	6.5E-01 J	1.9E-01	mg/kg	95% UCL - NP	(f)
	Chromium	mg/kg	1.1E+02	1.4E+02 (G)	3.2E+02 J	1.4E+02	mg/kg	95% UCL - G	(h)
	Copper	mg/kg	8.0E+01	1.0E+02 (G)	3.0E+02	1.0E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	2.6E+02	3.3E+02 (G)	8.2E+02	3.3E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	7.7E-01	9.6E-01 (N)	2.4E+00	9.6E-01	mg/kg	95% UCL - N	(d)
	Thallium	mg/kg	1.6E+00	1.9E+00 (NP)	3.6E+00 J	1.9E+00	mg/kg	95% UCL - NP	(f)
	Vanadium	mg/kg	2.8E+01	3.1E+01 (G)	5.8E+01	3.1E+01	mg/kg	95% UCL - G	(h)
	Zinc	mg/kg	1.9E+03	1.9E+04 (NP)	4.5E+04	1.9E+04	mg/kg	95% UCL - NP	(f)

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TABLE 3-3.4.CT

EXPOSURE POINT CONCENTRATION SUMMARY

CENTRAL TENDENCY EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future

Medium: Soil

Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.3 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.5.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 3									
	4,4'-DDD	mg/kg	4.8E-03	6.7E-03 (N)	9.8E-03	6.7E-03	mg/kg	95% UCL - N	(d)
	4,4'-DDE	mg/kg	1.0E-02	1.6E-02 (G)	2.6E-02	1.6E-02	mg/kg	95% UCL - G	(h)
	4,4'-DDT	mg/kg	1.8E-03	2.8E-03 (N)	4.6E-03 J	2.8E-03	mg/kg	95% UCL - N	(d)
	Aldrin	mg/kg	4.6E-04	7.3E-04 (G)	3.2E-04 J	3.2E-04	mg/kg	Max	(g)
	alpha-Chlordane	mg/kg	4.2E-03	5.8E-03 (N)	8.9E-03 J	5.8E-03	mg/kg	95% UCL - N	(d)
	Aroclor-1254	mg/kg	1.6E-02	2.2E-02 (N)	3.6E-02 J	2.2E-02	mg/kg	95% UCL - N	(d)
	Aroclor-1260	mg/kg	4.0E-02	6.3E-02 (G)	1.1E-01	6.3E-02	mg/kg	95% UCL - G	(h)
	delta-BHC	mg/kg	5.4E-04	8.1E-04 (G)	5.8E-04 J	5.8E-04	mg/kg	Max	(g)
	Dieldrin	mg/kg	1.8E-03	2.2E-03 (N)	2.9E-03 J	2.2E-03	mg/kg	95% UCL - N	(d)
	Heptachlor epoxide	mg/kg	5.4E-04	8.5E-04 (G)	1.7E-03 J	8.5E-04	mg/kg	95% UCL - G	(h)
	Antimony	mg/kg	7.0E-02	9.5E-02 (NP)	1.6E-01	9.5E-02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	3.9E-02	4.9E-02 (G)	6.2E-02 J	4.9E-02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.0E-01	3.6E-01 (NP)	5.8E-01 J	3.6E-01	mg/kg	95% UCL - NP	(f)
	Selenium	mg/kg	4.7E-01	5.7E-01 (N)	7.8E-01 J	5.7E-01	mg/kg	95% UCL - N	(d)
Reaches 4 & 5									
	4,4'-DDD	mg/kg	6.2E-03	1.6E-02 (NP)	2.1E-02	1.6E-02	mg/kg	95% UCL - NP	(f)
	4,4'-DDE	mg/kg	3.0E-02	8.6E-02 (NP)	1.2E-01	8.6E-02	mg/kg	95% UCL - NP	(f)
	4,4'-DDT	mg/kg	3.9E-03	8.1E-03 (G)	1.9E-02	8.1E-03	mg/kg	95% UCL - G	(h)
	Aldrin	mg/kg	6.5E-04	1.6E-03 (NP)	5.3E-04 J	5.3E-04	mg/kg	Max	(g)
	alpha-Chlordane	mg/kg	2.0E-03	2.5E-03 (NP)	3.0E-03	2.5E-03	mg/kg	95% UCL - NP	(f)
	Aroclor-1254	mg/kg	5.0E-02	8.6E-02 (T)	1.4E-01	8.6E-02	mg/kg	95% UCL - T	(e)
	Aroclor-1260	mg/kg	6.4E-02	1.9E-01 (NP)	3.2E-01	1.9E-01	mg/kg	95% UCL - NP	(f)
	Dieldrin	mg/kg	1.5E-03	3.2E-03 (NP)	1.5E-03 J	1.5E-03	mg/kg	Max	(g)
	Antimony	mg/kg	6.0E-02	7.7E-02 (NP)	1.4E-01	7.7E-02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	4.0E-02	4.7E-02 (NP)	7.2E-02 J	4.7E-02	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	2.1E-01	3.0E-01 (T)	5.7E-01 J	3.0E-01	mg/kg	95% UCL - T	(e)
	Selenium	mg/kg	6.0E-01	6.8E-01 (N)	8.4E-01 J	6.8E-01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.5.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 6									
	4,4'-DDD	mg/kg	1.3E-02	2.0E-02 (N)	2.7E-02	2.0E-02	mg/kg	95% UCL - N	(d)
	4,4'-DDE	mg/kg	3.6E-02	5.8E-02 (N)	8.3E-02	5.8E-02	mg/kg	95% UCL - N	(d)
	4,4'-DDT	mg/kg	2.8E-03	4.7E-03 (N)	6.7E-03 J	4.7E-03	mg/kg	95% UCL - N	(d)
	Aldrin	mg/kg	1.1E-03	1.7E-03 (N)	5.3E-04 J	5.3E-04	mg/kg	Max	(g)
	alpha-Chlordane	mg/kg	5.4E-03	8.3E-03 (G)	1.1E-02 J	8.3E-03	mg/kg	95% UCL - G	(h)
	Aroclor-1248	mg/kg	1.1E-02	1.7E-02 (N)	7.9E-03	7.9E-03	mg/kg	Max	(g)
	Aroclor-1254	mg/kg	7.7E-02	1.3E-01 (N)	1.8E-01	1.3E-01	mg/kg	95% UCL - N	(d)
	Aroclor-1260	mg/kg	5.2E-02	7.8E-02 (N)	1.1E-01	7.8E-02	mg/kg	95% UCL - N	(d)
	Dieldrin	mg/kg	2.1E-03	3.4E-03 (N)	2.3E-03 J	2.3E-03	mg/kg	Max	(g)
	Heptachlor epoxide	mg/kg	1.1E-03	1.7E-03 (N)	5.3E-04 J	5.3E-04	mg/kg	Max	(g)
	Arsenic	mg/kg	6.5E-02	1.6E-01 (NP)	1.7E-01	1.6E-01	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	4.2E-01	4.2E+00 (NP)	2.3E+00 J	2.3E+00	mg/kg	Max	(g)
	Mercury	mg/kg	1.5E-01	2.0E-01 (N)	2.0E-01 J	2.0E-01	mg/kg	Max	(g)
	Selenium	mg/kg	5.7E-01	6.2E-01 (N)	6.5E-01 J	6.2E-01	mg/kg	95% UCL - N	(d)

(1) Refer to Tables 3-2.4.1 through 3-2.4.3 for sample groupings; only COPCs selected on Table 3-2.4 and detected in each reach grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.5.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 3									
	4,4'-DDD	mg/kg	4.8E-03	6.7E-03 (N)	9.8E-03	6.7E-03	mg/kg	95% UCL - N	(d)
	4,4'-DDE	mg/kg	1.0E-02	1.6E-02 (G)	2.6E-02	1.6E-02	mg/kg	95% UCL - G	(h)
	4,4'-DDT	mg/kg	1.8E-03	2.8E-03 (N)	4.6E-03 J	2.8E-03	mg/kg	95% UCL - N	(d)
	Aldrin	mg/kg	4.6E-04	7.3E-04 (G)	3.2E-04 J	3.2E-04	mg/kg	Max	(c)
	alpha-Chlordane	mg/kg	4.2E-03	5.8E-03 (N)	8.9E-03 J	5.8E-03	mg/kg	95% UCL - N	(d)
	Aroclor-1254	mg/kg	1.6E-02	2.2E-02 (N)	3.6E-02 J	2.2E-02	mg/kg	95% UCL - N	(d)
	Aroclor-1260	mg/kg	4.0E-02	6.3E-02 (G)	1.1E-01	6.3E-02	mg/kg	95% UCL - G	(h)
	delta-BHC	mg/kg	5.4E-04	8.1E-04 (G)	5.8E-04 J	5.4E-04	mg/kg	Mean	(b)
	Dieldrin	mg/kg	1.8E-03	2.2E-03 (N)	2.9E-03 J	2.2E-03	mg/kg	95% UCL - N	(d)
	Heptachlor epoxide	mg/kg	5.4E-04	8.5E-04 (G)	1.7E-03 J	8.5E-04	mg/kg	95% UCL - G	(h)
	Antimony	mg/kg	7.0E-02	9.5E-02 (NP)	1.6E-01	9.5E-02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	3.9E-02	4.9E-02 (G)	6.2E-02 J	4.9E-02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	1.0E-01	3.6E-01 (NP)	5.8E-01 J	3.6E-01	mg/kg	95% UCL - NP	(f)
	Selenium	mg/kg	4.7E-01	5.7E-01 (N)	7.8E-01 J	5.7E-01	mg/kg	95% UCL - N	(d)
Reaches 4 & 5									
	4,4'-DDD	mg/kg	6.2E-03	1.6E-02 (NP)	2.1E-02	1.6E-02	mg/kg	95% UCL - NP	(f)
	4,4'-DDE	mg/kg	3.0E-02	8.6E-02 (NP)	1.2E-01	8.6E-02	mg/kg	95% UCL - NP	(f)
	4,4'-DDT	mg/kg	3.9E-03	8.1E-03 (G)	1.9E-02	8.1E-03	mg/kg	95% UCL - G	(h)
	Aldrin	mg/kg	6.5E-04	1.6E-03 (NP)	5.3E-04 J	5.3E-04	mg/kg	Max	(c)
	alpha-Chlordane	mg/kg	2.0E-03	2.5E-03 (NP)	3.0E-03	2.5E-03	mg/kg	95% UCL - NP	(f)
	Aroclor-1254	mg/kg	5.0E-02	8.6E-02 (T)	1.4E-01	8.6E-02	mg/kg	95% UCL - T	(e)
	Aroclor-1260	mg/kg	6.4E-02	1.9E-01 (NP)	3.2E-01	1.9E-01	mg/kg	95% UCL - NP	(f)
	Dieldrin	mg/kg	1.5E-03	3.2E-03 (NP)	1.5E-03 J	1.5E-03	mg/kg	Mean	(b)
	Antimony	mg/kg	6.0E-02	7.7E-02 (NP)	1.4E-01	7.7E-02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	4.0E-02	4.7E-02 (NP)	7.2E-02 J	4.7E-02	mg/kg	95% UCL - NP	(f)
	Mercury	mg/kg	2.1E-01	3.0E-01 (T)	5.7E-01 J	3.0E-01	mg/kg	95% UCL - T	(e)
	Selenium	mg/kg	6.0E-01	6.8E-01 (N)	8.4E-01 J	6.8E-01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.5.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
Reach 6									
	4,4'-DDD	mg/kg	1.3E-02	2.0E-02 (N)	2.7E-02	2.0E-02	mg/kg	95% UCL - N	(d)
	4,4'-DDE	mg/kg	3.6E-02	5.8E-02 (N)	8.3E-02	5.8E-02	mg/kg	95% UCL - N	(d)
	4,4'-DDT	mg/kg	2.8E-03	4.7E-03 (N)	6.7E-03 J	4.7E-03	mg/kg	95% UCL - N	(d)
	Aldrin	mg/kg	1.1E-03	1.7E-03 (N)	5.3E-04 J	5.3E-04	mg/kg	Max	(c)
	alpha-Chlordane	mg/kg	5.4E-03	8.3E-03 (G)	1.1E-02 J	8.3E-03	mg/kg	95% UCL - G	(h)
	Aroclor-1248	mg/kg	1.1E-02	1.7E-02 (N)	7.9E-03	7.9E-03	mg/kg	Max	(c)
	Aroclor-1254	mg/kg	7.7E-02	1.3E-01 (N)	1.8E-01	1.3E-01	mg/kg	95% UCL - N	(d)
	Aroclor-1260	mg/kg	5.2E-02	7.8E-02 (N)	1.1E-01	7.8E-02	mg/kg	95% UCL - N	(d)
	Dieldrin	mg/kg	2.1E-03	3.4E-03 (N)	2.3E-03 J	2.1E-03	mg/kg	Mean	(b)
	Heptachlor epoxide	mg/kg	1.1E-03	1.7E-03 (N)	5.3E-04 J	5.3E-04	mg/kg	Max	(c)
	Arsenic	mg/kg	6.5E-02	1.6E-01 (NP)	1.7E-01	1.6E-01	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	4.2E-01	4.2E+00 (NP)	2.3E+00 J	4.2E-01	mg/kg	Mean	(b)
	Mercury	mg/kg	1.5E-01	2.0E-01 (N)	2.0E-01 J	1.5E-01	mg/kg	Mean	(b)
	Selenium	mg/kg	5.7E-01	6.2E-01 (N)	6.5E-01 J	6.2E-01	mg/kg	95% UCL - N	(d)

(1) Refer to Tables 3-2.4.1 through 3-2.4.3 for sample groupings; only COPCs selected on Table 3-2.4 and detected in each reach grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

US EPA ARCHIVE DOCUMENT

TABLE 3-3.6.RME

EXPOSURE POINT CONCENTRATION SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future

Medium: Sediment

Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
AJRW									
	Arsenic	mg/kg	1.5E+01	1.9E+01 (NP)	2.9E+01	1.9E+01	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	1.9E+02	2.6E+02 (G)	4.7E+02	2.6E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.9E+02	2.3E+02 (N)	3.3E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.3E-01	7.0E-01 (N)	1.0E+00	7.0E-01	mg/kg	95% UCL - N	(d)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.5 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.6.CT

EXPOSURE POINT CONCENTRATION SUMMARY

CENTRAL TENDENCY EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
AJRW									
	Arsenic	mg/kg	1.5E+01	1.9E+01 (NP)	2.9E+01	1.9E+01	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	1.9E+02	2.6E+02 (G)	4.7E+02	2.6E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	1.9E+02	2.3E+02 (N)	3.3E+02	2.3E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	5.3E-01	7.0E-01 (N)	1.0E+00	7.0E-01	mg/kg	95% UCL - N	(d)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.5 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.7.RME

EXPOSURE POINT CONCENTRATION SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future

Medium: Soil

Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
AJRW									
	Arsenic	mg/kg	4.6E+01	6.7E+01 (N)	9.8E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	4.0E+01	5.3E+01 (N)	9.0E+01	5.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+02	5.1E+02 (G)	9.3E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	2.3E+02	3.5E+02 (G)	6.0E+02	3.5E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	4.3E-01	6.6E-01 (G)	1.2E+00	6.6E-01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	4.4E+01	5.2E+01 (N)	7.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.6 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.7.CT

EXPOSURE POINT CONCENTRATION SUMMARY

CENTRAL TENDENCY EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
AJRW									
	Arsenic	mg/kg	4.6E+01	6.7E+01 (N)	9.8E+01	6.7E+01	mg/kg	95% UCL - N	(d)
	Chromium	mg/kg	4.0E+01	5.3E+01 (N)	9.0E+01	5.3E+01	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	3.0E+02	5.1E+02 (G)	9.3E+02	5.1E+02	mg/kg	95% UCL - G	(h)
	Manganese	mg/kg	2.3E+02	3.5E+02 (G)	6.0E+02	3.5E+02	mg/kg	95% UCL - G	(h)
	Mercury	mg/kg	4.3E-01	6.6E-01 (G)	1.2E+00	6.6E-01	mg/kg	95% UCL - G	(h)
	Vanadium	mg/kg	4.4E+01	5.2E+01 (N)	7.0E+01	5.2E+01	mg/kg	95% UCL - N	(d)

(1) Refer to Appendix C.1 for station sample groupings; only COPCs selected on Table 3-2.6 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.8.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SW-05-Baseflow									
	Arsenic	ug/L	2.1E+01	2.4E+01 (N)	2.8E+01	2.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	7.8E+00	9.6E+00 (N)	1.4E+01	9.6E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	5.9E+02	6.5E+02 (N)	7.6E+02	6.5E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	5.4E-02	6.5E-02 (NP)	1.0E-01 J	6.5E-02	ug/L	95% UCL - NP	(f)
SW-05-Storm Event									
	Antimony	ug/L	1.8E+00	2.7E+00 (N)	3.9E+00	2.7E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	1.5E+01	1.9E+01 (N)	2.3E+01	1.9E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	7.0E+00	1.0E+01 (N)	1.2E+01	1.0E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	2.4E+02	4.0E+02 (G)	5.3E+02	4.0E+02	ug/L	95% UCL - G	(h)
	Mercury	ug/L	6.3E-02	9.0E-02 (NP)	1.3E-01 J	9.0E-02	ug/L	95% UCL - NP	(f)
SW-06-Baseflow									
	Arsenic	ug/L	1.2E+01	1.4E+01 (N)	1.9E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	4.1E+00	6.3E+00 (G)	1.3E+01	6.3E+00	ug/L	95% UCL - G	(h)
	Manganese	ug/L	5.1E+02	5.8E+02 (N)	7.6E+02	5.8E+02	ug/L	95% UCL - N	(d)
SW-06-Storm Event									
	Antimony	ug/L	1.5E+00	2.8E+00 (G)	3.9E+00	2.8E+00	ug/L	95% UCL - G	(h)
	Arsenic	ug/L	2.0E+01	2.4E+01 (N)	2.6E+01	2.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	1.4E+01	2.0E+01 (N)	2.4E+01	2.0E+01	ug/L	95% UCL - N	(d)
	Lead	ug/L	8.9E+00	1.4E+01 (N)	1.6E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	3.1E+02	4.1E+02 (N)	4.9E+02	4.1E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	8.0E-02	1.7E-01 (NP)	1.6E-01 J	1.6E-01	ug/L	Max	(g)
SW-07-Baseflow									
	Arsenic	ug/L	5.7E+00	6.4E+00 (N)	8.3E+00	6.4E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	3.7E+02	4.4E+02 (N)	5.9E+02	4.4E+02	ug/L	95% UCL - N	(d)
SW-07-Storm Event									
	Arsenic	ug/L	9.7E+00	1.4E+01 (N)	1.8E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	5.8E+00	9.5E+00 (N)	1.3E+01	9.5E+00	ug/L	95% UCL - N	(d)
	Lead	ug/L	7.0E+00	1.2E+01 (N)	1.7E+01	1.2E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	1.8E+02	2.4E+02 (N)	3.1E+02	2.4E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	6.0E-02	8.0E-02 (NP)	1.1E-01 J	8.0E-02	ug/L	95% UCL - NP	(f)
SW-08-Baseflow									
	Arsenic	ug/L	3.5E+00	4.5E+00 (N)	6.4E+00	4.5E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	2.5E+02	3.0E+02 (N)	4.3E+02	3.0E+02	ug/L	95% UCL - N	(d)

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TABLE 3-3.8.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SW-08-Storm Event									
	Antimony	ug/L	1.2E+00	1.5E+00 (N)	1.8E+00	1.5E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	1.1E+01	2.7E+01 (T)	3.0E+01	2.7E+01	ug/L	95% UCL - T	(e)
	Chromium	ug/L	1.5E+01	4.8E+01 (G)	5.9E+01	4.8E+01	ug/L	95% UCL - G	(h)
	Lead	ug/L	2.3E+01	7.2E+01 (G)	8.3E+01	7.2E+01	ug/L	95% UCL - G	(h)
	Manganese	ug/L	3.4E+02	6.2E+02 (G)	8.1E+02	6.2E+02	ug/L	95% UCL - G	(h)
	Mercury	ug/L	9.5E-02	1.7E-01 (G)	2.4E-01	1.7E-01	ug/L	95% UCL - G	(h)
	Thallium	ug/L	1.5E+00	1.8E+00 (N)	2.2E+00	1.8E+00	ug/L	95% UCL - N	(d)
SW-09-Baseflow									
	Arsenic	ug/L	2.0E+00	2.7E+00 (G)	3.8E+00	2.7E+00	ug/L	95% UCL - G	(h)
	Manganese	ug/L	4.0E+01	5.7E+01 (G)	9.8E+01	5.7E+01	ug/L	95% UCL - G	(h)
SW-09-Storm Event									
	Antimony	ug/L	1.2E+00	1.8E+00 (N)	2.5E+00 J	1.8E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	2.6E+00	3.8E+00 (N)	4.2E+00	3.8E+00	ug/L	95% UCL - N	(d)
SW-10-Baseflow									
	Arsenic	ug/L	1.3E+00	1.8E+00 (N)	2.4E+00 J	1.8E+00	ug/L	95% UCL - N	(d)
	Mercury	ug/L	8.4E-02	2.2E-01 (NP)	3.6E-01	2.2E-01	ug/L	95% UCL - NP	(f)
SW-10-Storm Event									
	Arsenic	ug/L	1.4E+00	2.0E+00 (N)	2.8E+00 J	2.0E+00	ug/L	95% UCL - N	(d)
	Mercury	ug/L	5.8E-02	7.5E-02 (NP)	1.0E-01 J	7.5E-02	ug/L	95% UCL - NP	(f)

(1) Refer to Tables 3-2.7 for sample groupings; only COPCs selected on Table 3-2.7 and detected in each grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.8.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
(1)				(2)				(3)	(4)
SW-05-Baseflow									
	Arsenic	ug/L	2.1E+01	2.4E+01 (N)	2.8E+01	2.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	7.8E+00	9.6E+00 (N)	1.4E+01	9.6E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	5.9E+02	6.5E+02 (N)	7.6E+02	6.5E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	5.4E-02	6.5E-02 (NP)	1.0E-01 J	6.5E-02	ug/L	95% UCL - NP	(f)
SW-05-Storm Event									
	Antimony	ug/L	1.8E+00	2.7E+00 (N)	3.9E+00	2.7E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	1.5E+01	1.9E+01 (N)	2.3E+01	1.9E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	7.0E+00	1.0E+01 (N)	1.2E+01	1.0E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	2.4E+02	4.0E+02 (G)	5.3E+02	4.0E+02	ug/L	95% UCL - G	(h)
	Mercury	ug/L	6.3E-02	9.0E-02 (NP)	1.3E-01 J	9.0E-02	ug/L	95% UCL - NP	(f)
SW-06-Baseflow									
	Arsenic	ug/L	1.2E+01	1.4E+01 (N)	1.9E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	4.1E+00	6.3E+00 (G)	1.3E+01	6.3E+00	ug/L	95% UCL - G	(h)
	Manganese	ug/L	5.1E+02	5.8E+02 (N)	7.6E+02	5.8E+02	ug/L	95% UCL - N	(d)
SW-06-Storm Event									
	Antimony	ug/L	1.5E+00	2.8E+00 (G)	3.9E+00	2.8E+00	ug/L	95% UCL - G	(h)
	Arsenic	ug/L	2.0E+01	2.4E+01 (N)	2.6E+01	2.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	1.4E+01	2.0E+01 (N)	2.4E+01	2.0E+01	ug/L	95% UCL - N	(d)
	Lead	ug/L	8.9E+00	1.4E+01 (N)	1.6E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	3.1E+02	4.1E+02 (N)	4.9E+02	4.1E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	8.0E-02	1.7E-01 (NP)	1.6E-01 J	8.0E-02	ug/L	Mean	(b)
SW-07-Baseflow									
	Arsenic	ug/L	5.7E+00	6.4E+00 (N)	8.3E+00	6.4E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	3.7E+02	4.4E+02 (N)	5.9E+02	4.4E+02	ug/L	95% UCL - N	(d)
SW-07-Storm Event									
	Arsenic	ug/L	9.7E+00	1.4E+01 (N)	1.8E+01	1.4E+01	ug/L	95% UCL - N	(d)
	Chromium	ug/L	5.8E+00	9.5E+00 (N)	1.3E+01	9.5E+00	ug/L	95% UCL - N	(d)
	Lead	ug/L	7.0E+00	1.2E+01 (N)	1.7E+01	1.2E+01	ug/L	95% UCL - N	(d)
	Manganese	ug/L	1.8E+02	2.4E+02 (N)	3.1E+02	2.4E+02	ug/L	95% UCL - N	(d)
	Mercury	ug/L	6.0E-02	8.0E-02 (NP)	1.1E-01 J	8.0E-02	ug/L	95% UCL - NP	(f)
SW-08-Baseflow									
	Arsenic	ug/L	3.5E+00	4.5E+00 (N)	6.4E+00	4.5E+00	ug/L	95% UCL - N	(d)
	Manganese	ug/L	2.5E+02	3.0E+02 (N)	4.3E+02	3.0E+02	ug/L	95% UCL - N	(d)

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TABLE 3-3.8.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SW-08-Storm Event									
	Antimony	ug/L	1.2E+00	1.5E+00 (N)	1.8E+00	1.5E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	1.1E+01	2.7E+01 (T)	3.0E+01	2.7E+01	ug/L	95% UCL - T	(e)
	Chromium	ug/L	1.5E+01	4.8E+01 (G)	5.9E+01	4.8E+01	ug/L	95% UCL - G	(h)
	Lead	ug/L	2.3E+01	7.2E+01 (G)	8.3E+01	7.2E+01	ug/L	95% UCL - G	(h)
	Manganese	ug/L	3.4E+02	6.2E+02 (G)	8.1E+02	6.2E+02	ug/L	95% UCL - G	(h)
	Mercury	ug/L	9.5E-02	1.7E-01 (G)	2.4E-01	1.7E-01	ug/L	95% UCL - G	(h)
	Thallium	ug/L	1.5E+00	1.8E+00 (N)	2.2E+00	1.8E+00	ug/L	95% UCL - N	(d)
SW-09-Baseflow									
	Arsenic	ug/L	2.0E+00	2.7E+00 (G)	3.8E+00	2.7E+00	ug/L	95% UCL - G	(h)
	Manganese	ug/L	4.0E+01	5.7E+01 (G)	9.8E+01	5.7E+01	ug/L	95% UCL - G	(h)
SW-09-Storm Event									
	Antimony	ug/L	1.2E+00	1.8E+00 (N)	2.5E+00 J	1.8E+00	ug/L	95% UCL - N	(d)
	Arsenic	ug/L	2.6E+00	3.8E+00 (N)	4.2E+00	3.8E+00	ug/L	95% UCL - N	(d)
SW-10-Baseflow									
	Arsenic	ug/L	1.3E+00	1.8E+00 (N)	2.4E+00 J	1.8E+00	ug/L	95% UCL - N	(d)
	Mercury	ug/L	8.4E-02	2.2E-01 (NP)	3.6E-01	2.2E-01	ug/L	95% UCL - NP	(f)
SW-10-Storm Event									
	Arsenic	ug/L	1.4E+00	2.0E+00 (N)	2.8E+00 J	2.0E+00	ug/L	95% UCL - N	(d)
	Mercury	ug/L	5.8E-02	7.5E-02 (NP)	1.0E-01 J	7.5E-02	ug/L	95% UCL - NP	(f)

(1) Refer to Tables 3-2.7 for sample groupings; only COPCs selected on Table 3-2.7 and detected in each grouping appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.9.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC05									
	Antimony	mg/kg	7.3E+00	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.4E+02	9.5E+02 (N)	9.0E+02	9.0E+02	mg/kg	Max	(g)
	Cadmium	mg/kg	1.2E+01	2.3E+01 (N)	2.4E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.9E+02	1.7E+03 (N)	1.6E+03	1.6E+03	mg/kg	Max	(g)
	Lead	mg/kg	4.0E+02	6.0E+02 (N)	6.4E+02	6.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	4.4E+02 (NP)	3.9E+02	3.9E+02	mg/kg	Max	(g)
	Mercury	mg/kg	1.1E+01	2.3E+01 (N)	2.6E+01 J	2.3E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.5E+01	5.8E+01 (N)	6.1E+01	5.8E+01	mg/kg	95% UCL - N	(d)
SC06									
	Arsenic	mg/kg	8.6E+02	1.8E+03 (N)	1.7E+03	1.7E+03	mg/kg	Max	(g)
	Cadmium	mg/kg	1.9E+01	4.3E+01 (N)	4.8E+01	4.3E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	5.0E+02	1.0E+03 (N)	9.5E+02	9.5E+02	mg/kg	Max	(g)
	Lead	mg/kg	3.4E+02	7.0E+02 (N)	6.2E+02	6.2E+02	mg/kg	Max	(g)
	Manganese	mg/kg	7.8E+02	1.7E+03 (N)	1.8E+03	1.7E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.8E+00	9.4E+00 (N)	8.2E+00 J	8.2E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	3.5E+01	6.7E+01 (N)	6.4E+01	6.4E+01	mg/kg	Max	(g)
	Zinc	mg/kg	2.0E+03	4.2E+03 (N)	4.6E+03	4.2E+03	mg/kg	95% UCL - N	(d)
SC07									
	Arsenic	mg/kg	2.1E+02	4.0E+02 (N)	4.4E+02	4.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.1E+01	2.2E+01 (N)	2.5E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.0E+02	8.2E+02 (N)	9.1E+02	8.2E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.4E+02	5.1E+02 (N)	5.7E+02	5.1E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.1E+03	2.3E+03 (N)	2.6E+03	2.3E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.6E+00	3.4E+00 (N)	3.7E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.4E+01	6.6E+01 (N)	7.2E+01	6.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.1E+03	4.3E+03 (N)	4.8E+03	4.3E+03	mg/kg	95% UCL - N	(d)
SC08									
	Arsenic	mg/kg	3.5E+02	4.5E+03 (G)	1.3E+03	1.3E+03	mg/kg	Max	(g)
	Cadmium	mg/kg	6.9E+00	6.8E+01 (G)	2.2E+01	2.2E+01	mg/kg	Max	(g)
	Copper	mg/kg	3.9E+02	5.3E+03 (G)	1.4E+03	1.4E+03	mg/kg	Max	(g)
	Lead	mg/kg	1.9E+02	2.4E+03 (G)	6.8E+02	6.8E+02	mg/kg	Max	(g)
	Manganese	mg/kg	2.1E+02	5.2E+02 (N)	5.9E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	3.8E+00	5.2E+01 (G)	1.4E+01	1.4E+01	mg/kg	Max	(g)
	Vanadium	mg/kg	2.0E+01	2.2E+02 (G)	6.7E+01	6.7E+01	mg/kg	Max	(g)
	Zinc	mg/kg	8.6E+02	2.3E+03 (N)	2.7E+03	2.3E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.9.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC09									
	Arsenic	mg/kg	4.8E+01	1.1E+02 (G)	8.9E+01	8.9E+01	mg/kg	Max	(g)
	Mercury	mg/kg	5.6E-01	1.7E+00 (G)	1.2E+00	1.2E+00	mg/kg	Max	(g)
SC10									
	Arsenic	mg/kg	2.7E+01	5.9E+01 (N)	6.7E+01	5.9E+01	mg/kg	95% UCL - N	(d)
SC11									
	Arsenic	mg/kg	1.0E+02	1.1E+02 (G)	1.1E+02	1.1E+02	mg/kg	Max	(g)
	Cadmium	mg/kg	5.9E+00	7.4E+00 (N)	7.2E+00	7.2E+00	mg/kg	Max	(g)
	Copper	mg/kg	2.6E+02	3.3E+02 (N)	3.4E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	5.8E+02	1.1E+03 (N)	1.2E+03	1.1E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	5.2E+02	6.2E+02 (N)	6.3E+02	6.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.9E+00	2.1E+00 (N)	2.2E+00	2.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.8E+01	7.0E+01 (N)	7.1E+01	7.0E+01	mg/kg	95% UCL - N	(d)
SC12									
	Arsenic	mg/kg	1.1E+02	1.3E+02 (N)	1.3E+02	1.3E+02	mg/kg	Max	(g)
	Cadmium	mg/kg	1.0E+01	1.1E+01 (N)	1.1E+01	1.1E+01	mg/kg	Max	(g)
	Copper	mg/kg	4.0E+02	4.5E+02 (NP)	4.6E+02	4.5E+02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	9.6E+02	1.4E+03 (N)	1.3E+03	1.3E+03	mg/kg	Max	(g)
	Manganese	mg/kg	6.4E+02	9.1E+02 (N)	9.6E+02	9.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	2.7E+00 (N)	2.7E+00	2.7E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	7.1E+01	8.3E+01 (N)	8.6E+01	8.3E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.9.RME

EXPOSURE POINT CONCENTRATION SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future

Medium: Sediment

Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC13									
	Arsenic	mg/kg	7.8E+01	1.2E+02 (N)	1.2E+02	1.2E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.2E+00	1.2E+01 (N)	1.2E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.3E+02	4.8E+02 (N)	4.6E+02	4.6E+02	mg/kg	Max	(g)
	Lead	mg/kg	3.7E+02	7.3E+02 (N)	8.1E+02	7.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.5E+02	3.5E+02 (N)	3.7E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.5E+00	2.2E+00 (N)	2.1E+00 J	2.1E+00	mg/kg	Max	(g)
	Vanadium	mg/kg	4.8E+01	7.9E+01 (N)	8.7E+01	7.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+03	2.6E+03 (N)	2.5E+03	2.5E+03	mg/kg	Max	(g)

(1) Refer to Table 3-2.8 station sample groupings; only COPCs selected on Table 3-2.8 and detected at each station appear.

(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL

(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)

(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-3.9.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC05									
	Antimony	mg/kg	7.3E+00	1.2E+01 (N)	1.3E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Arsenic	mg/kg	5.4E+02	9.5E+02 (N)	9.0E+02	5.4E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.2E+01	2.3E+01 (N)	2.4E+01	2.3E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	9.9E+02	1.7E+03 (N)	1.6E+03	9.9E+02	mg/kg	Mean	(b)
	Lead	mg/kg	4.0E+02	6.0E+02 (N)	6.4E+02	6.0E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	3.6E+02	4.4E+02 (NP)	3.9E+02	3.6E+02	mg/kg	Mean	(b)
	Mercury	mg/kg	1.1E+01	2.3E+01 (N)	2.6E+01 J	2.3E+01	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.5E+01	5.8E+01 (N)	6.1E+01	5.8E+01	mg/kg	95% UCL - N	(d)
SC06									
	Arsenic	mg/kg	8.6E+02	1.8E+03 (N)	1.7E+03	8.6E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.9E+01	4.3E+01 (N)	4.8E+01	4.3E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	5.0E+02	1.0E+03 (N)	9.5E+02	5.0E+02	mg/kg	Mean	(b)
	Lead	mg/kg	3.4E+02	7.0E+02 (N)	6.2E+02	3.4E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	7.8E+02	1.7E+03 (N)	1.8E+03	1.7E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	4.8E+00	9.4E+00 (N)	8.2E+00 J	4.8E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	3.5E+01	6.7E+01 (N)	6.4E+01	3.5E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	2.0E+03	4.2E+03 (N)	4.6E+03	4.2E+03	mg/kg	95% UCL - N	(d)
SC07									
	Arsenic	mg/kg	2.1E+02	4.0E+02 (N)	4.4E+02	4.0E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	1.1E+01	2.2E+01 (N)	2.5E+01	2.2E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	4.0E+02	8.2E+02 (N)	9.1E+02	8.2E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	2.4E+02	5.1E+02 (N)	5.7E+02	5.1E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	1.1E+03	2.3E+03 (N)	2.6E+03	2.3E+03	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.6E+00	3.4E+00 (N)	3.7E+00 J	3.4E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	4.4E+01	6.6E+01 (N)	7.2E+01	6.6E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	2.1E+03	4.3E+03 (N)	4.8E+03	4.3E+03	mg/kg	95% UCL - N	(d)
SC08									
	Arsenic	mg/kg	3.5E+02	4.5E+03 (G)	1.3E+03	3.5E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	6.9E+00	6.8E+01 (G)	2.2E+01	6.9E+00	mg/kg	Mean	(b)
	Copper	mg/kg	3.9E+02	5.3E+03 (G)	1.4E+03	3.9E+02	mg/kg	Mean	(b)
	Lead	mg/kg	1.9E+02	2.4E+03 (G)	6.8E+02	1.9E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	2.1E+02	5.2E+02 (N)	5.9E+02	5.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	3.8E+00	5.2E+01 (G)	1.4E+01	3.8E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	2.0E+01	2.2E+02 (G)	6.7E+01	2.0E+01	mg/kg	Mean	(b)
	Zinc	mg/kg	8.6E+02	2.3E+03 (N)	2.7E+03	2.3E+03	mg/kg	95% UCL - N	(d)

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TABLE 3-3.9.CT
EXPOSURE POINT CONCENTRATION SUMMARY
CENTRAL TENDENCY EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC09									
	Arsenic	mg/kg	4.8E+01	1.1E+02 (G)	8.9E+01	4.8E+01	mg/kg	Mean	(b)
	Mercury	mg/kg	5.6E-01	1.7E+00 (G)	1.2E+00	5.6E-01	mg/kg	Mean	(b)
SC10									
	Arsenic	mg/kg	2.7E+01	5.9E+01 (N)	6.7E+01	5.9E+01	mg/kg	95% UCL - N	(d)
SC11									
	Arsenic	mg/kg	1.0E+02	1.1E+02 (G)	1.1E+02	1.0E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	5.9E+00	7.4E+00 (N)	7.2E+00	5.9E+00	mg/kg	Mean	(b)
	Copper	mg/kg	2.6E+02	3.3E+02 (N)	3.4E+02	3.3E+02	mg/kg	95% UCL - N	(d)
	Lead	mg/kg	5.8E+02	1.1E+03 (N)	1.2E+03	1.1E+03	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	5.2E+02	6.2E+02 (N)	6.3E+02	6.2E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.9E+00	2.1E+00 (N)	2.2E+00	2.1E+00	mg/kg	95% UCL - N	(d)
	Vanadium	mg/kg	5.8E+01	7.0E+01 (N)	7.1E+01	7.0E+01	mg/kg	95% UCL - N	(d)
SC12									
	Arsenic	mg/kg	1.1E+02	1.3E+02 (N)	1.3E+02	1.1E+02	mg/kg	Mean	(b)
	Cadmium	mg/kg	1.0E+01	1.1E+01 (N)	1.1E+01	1.0E+01	mg/kg	Mean	(b)
	Copper	mg/kg	4.0E+02	4.5E+02 (NP)	4.6E+02	4.5E+02	mg/kg	95% UCL - NP	(f)
	Lead	mg/kg	9.6E+02	1.4E+03 (N)	1.3E+03	9.6E+02	mg/kg	Mean	(b)
	Manganese	mg/kg	6.4E+02	9.1E+02 (N)	9.6E+02	9.1E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	2.6E+00	2.7E+00 (N)	2.7E+00	2.6E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	7.1E+01	8.3E+01 (N)	8.6E+01	8.3E+01	mg/kg	95% UCL - N	(d)

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TABLE 3-3.9.CT

EXPOSURE POINT CONCENTRATION SUMMARY

CENTRAL TENDENCY EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Point (1)	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) (2)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic (3)	Rationale (4)
SC13									
	Arsenic	mg/kg	7.8E+01	1.2E+02 (N)	1.2E+02	1.2E+02	mg/kg	95% UCL - N	(d)
	Cadmium	mg/kg	7.2E+00	1.2E+01 (N)	1.2E+01	1.2E+01	mg/kg	95% UCL - N	(d)
	Copper	mg/kg	3.3E+02	4.8E+02 (N)	4.6E+02	3.3E+02	mg/kg	Mean	(b)
	Lead	mg/kg	3.7E+02	7.3E+02 (N)	8.1E+02	7.3E+02	mg/kg	95% UCL - N	(d)
	Manganese	mg/kg	2.5E+02	3.5E+02 (N)	3.7E+02	3.5E+02	mg/kg	95% UCL - N	(d)
	Mercury	mg/kg	1.5E+00	2.2E+00 (N)	2.1E+00 J	1.5E+00	mg/kg	Mean	(b)
	Vanadium	mg/kg	4.8E+01	7.9E+01 (N)	8.7E+01	7.9E+01	mg/kg	95% UCL - N	(d)
	Zinc	mg/kg	1.6E+03	2.6E+03 (N)	2.5E+03	1.6E+03	mg/kg	Mean	(b)

(1) Refer to Table 3-2.8 station sample groupings; only COPCs selected on Table 3-2.8 and detected at each station appear.
(2) T - Transformed; N - Normal; NP - Non-parametric; G - Gamma; <4 - sample size too small to calculate 95% UCL
(3) Statistics: Maximum Detected Value (Max); 95% UCL of Transformed Data (95% UCL - T); 95% UCL of Normal Data (95% UCL - N); 95% UCL of Non-parametric Data (95% UCL - NP); 95% UCL of Gamma Distributed Data (95% UCL - G); Arithmetic Mean (Mean)
(4) Rationale:

(a) Due to small sample size (<4), the maximum detected concentration is used.
(b) When the maximum detected concentration is selected as the RME EPC, the arithmetic mean concentration is selected as the CT EPC.
(c) If the arithmetic mean concentration equals or exceeds the maximum detected concentration, the maximum detected concentration is used as the CT EPC.
(d) Shapiro-Wilk W Test indicates data are normally distributed.
(e) Shapiro-Wilk W Test indicates data are log-normally distributed.
(f) Shapiro-Wilk W Test indicates data are neither normally nor log-normally distributed.
(g) 95% UCL exceeds maximum detected concentration. Therefore, maximum concentration used for EPC
(h) A-D Test and/or K-S Test indicates data are gamma distributed.

J = Estimated Concentration
Max = Maximum Detected Concentration
N/A = Not Applicable
UCL = Upper Confidence Limit
EPC = Exposure Point Concentration
RME = Reasonable Maximum Exposure
CT = Central Tendency

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TABLE 3-4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	DA x SA x EV x EF x ED / BW x AT
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CW x SA x PC x ET x EV x EF x ED x CF1 x CF2 / BW x AT
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	DA x SA x EV x EF x ED / BW x AT
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CW x SA x PC x ET x EV x EF x ED x CF1 x CF2 / BW x AT
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
		Young Child	Stations 14, CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 22/TT-22, NR, WG, WH, and AS	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.1.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
		Young Child	Stations 14, CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 22/TT-22, NR, WG, WH, and AS	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.1.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station 01	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
			(Swimming)	IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	Station 01	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
			(Swimming)	IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	Stations CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations NR and 14	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations NR and 14	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.RME	Cg/L	see Table 3-3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CW x IR x ET x EF x ED x CF1 x CF2 / BW x AT
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.2.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	Stations CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations NR and 14	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations CB-07, TT-30, and AM	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations NR and 14	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, DA, 16/TT-33, 09, 08, 07/DP, 06, 05, AJRW, 04, 03, and 02	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.2.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	Station 01 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.1.CT	Cg/L	see Table 3-3.1.CT	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.3.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Adult (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) = $\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME	mg/kg	see Table 3-3.2.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.3.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Adult (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations 14, CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, NR, WG, WH, and AS	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT	mg/kg	see Table 3-3.2.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.3.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Adult (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.RME	mg/kg	see Table 3-3.3.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.RME and Table 3-3.6.RME	mg/kg	see Table 3-3.2.RME and Table 3-3.6.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Adult (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	BW x AT
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	Stations CB-07, TT-30, and AM	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations NR and 14	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 22/TT-22, WG, WH, AS, NT-1, NT-2, NT-3, JY, 13/TT-27, WW, and TT-31	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.4.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations WS/WSS, CB-01, CB-02, CB-03, CB-04, and CB-06	CS	Chemical Concentration in Sediment	see Table 3-3.3.CT	mg/kg	see Table 3-3.3.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations LP, KF, 16/TT-33, 09, 08, 07/DP, 05, AJRW, 03, and 01	CS	Chemical Concentration in Sediment	see Table 3-3.2.CT and Table 3-3.6.CT	mg/kg	see Table 3-3.2.CT and Table 3-3.6.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.5.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.5.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	52	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.RME and Table 3-3.7.RME	mg/kg	see Table 3-3.4.RME and Table 3-3.7.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	104	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.6.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1994b	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	0.5	unitless	Prof. Judgement	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Recreational User	Adult	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Adult (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Station NR	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.6.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child (cont.)	Stations 07/DP, KF, AJRW, and DA	CS	Chemical Concentration in Soil	see Table 3-3.4.CT and Table 3-3.7.CT	mg/kg	see Table 3-3.4.CT and Table 3-3.7.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	26	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
			Stations WS/WSS and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	78	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.7.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Aberjona River Reaches	CF	Chemical Concentration in Fish	see Table 3-3.5.RME	mg/kg	see Table 3-3.5.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Fish	13,000	mg/day	USEPA, 1997	CF x IR x EF x ED x FI x CF1 / BW x AT
				EF	Exposure Frequency	365	days/year	USEPA, 1994b	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				FI	Fraction Ingested From Site	0.5	- -	assumption	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF1	Conversion Factor	0.000001	kg/mg	- -	
		Older Child	Aberjona River Reaches	CF	Chemical Concentration in Fish	see Table 3-3.5.RME	mg/kg	see Table 3-3.5.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Fish	6,500	mg/day	assumption	CF x IR x EF x ED x FI x CF1 / BW x AT
				EF	Exposure Frequency	365	days/year	USEPA, 1994b	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				FI	Fraction Ingested From Site	0.5	- -	assumption	
				BW	Body Weight	31	kg	USEPA, 2001b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.7.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Fish Fillet Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Aberjona River Reaches	CF	Chemical Concentration in Fish	see Table 3-3.5.CT	mg/kg	see Table 3-3.5.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Fish	5,000	mg/day	USEPA, 1997	CF x IR x EF x ED x FI x CF1
				EF	Exposure Frequency	365	days/year	USEPA, 1994b	BW x AT
				ED	Exposure Duration	7	years	USEPA, 1994b	
				FI	Fraction Ingested From Site	0.5	- -	assumption	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF1	Conversion Factor	0.000001	kg/mg	- -	
		Older Child	Aberjona River Reaches	CF	Chemical Concentration in Fish	see Table 3-3.5.CT	mg/kg	see Table 3-3.5.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Fish	2,500	mg/day	assumption	CF x IR x EF x ED x FI x CF1
				EF	Exposure Frequency	365	days/year	USEPA, 1994b	BW x AT
				ED	Exposure Duration	2	years	USEPA, 1994b	
				FI	Fraction Ingested From Site	0.5	- -	assumption	
				BW	Body Weight	31	kg	USEPA, 2001b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.8.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	SW-05 through SW-09	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26, 52, 78, or 104	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.8.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	SW-05 through SW-09	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26, 52, 78, or 104	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.8.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	1	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	39	days/year	assumption	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.8.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational User	Adult	SW-05 through SW-09	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26 or 78	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	18,000	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.8.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal (cont.)	Recreational User (cont.)	Young Child	SW-05 through SW-09	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	26 or 78	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
			SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6,600	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	event/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

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TABLE 3-4.8.CT
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Baseflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	
		Young Child	SW-10 (Swimming)	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Chronic Daily Intake (CDI) (mg/kg-day) = $\frac{CW \times IR \times ET \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				IR	Ingestion Rate of Water	50	mL/hr	USEPA, 1989	
				ET	Exposure Time	0.5	hrs/day	Prof. Judgement	
				EF	Exposure Frequency	5	days/year	assumption	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/Cg	- -	
				CF2	Conversion Factor 2	0.001	L/mL	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.9.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Storm Event Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Area Resident	Adult	SW-05 through SW-10	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	21	days/year	assumption	Inorganics:
				ED	Exposure Duration	7	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
		Young Child	SW-05 through SW-10	CW	Chemical Concentration in Water	see Table 3-3.8.CT	Cg/L	see Table 3-3.8.CT	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	0.5	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	21	days/year	assumption	Inorganics:
				ED	Exposure Duration	2	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.9.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Storm Event Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Area Resident	Adult	SW-05 through SW-10	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5700	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	42	days/year	assumption	Inorganics:
				ED	Exposure Duration	24	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	70	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	
		Young Child	SW-05 through SW-10	CW	Chemical Concentration in Water	see Table 3-3.8.RME	Cg/L	see Table 3-3.8.RME	Organics:
				DA	Dose Absorbed per Unit Area per Event	see Appendix C.7	mg/cm^2-event	USEPA, 2004d	Chronic Daily Intake (CDI) (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2800	cm^2	USEPA, 2004d	
				PC	Permeability Constant	chemical specific	cm/hr	USEPA, 2004d	$\frac{DA \times SA \times EV \times EF \times ED}{BW \times AT}$
				ET	Event Time	1	hrs/event	Prof. Judgement	
				EV	Event Frequency	1	events/day	Prof. Judgement	
				EF	Exposure Frequency	42	days/year	assumption	Inorganics:
				ED	Exposure Duration	6	years	USEPA, 1994b	CDI (mg/kg-day) =
				BW	Body Weight	15	kg	USEPA, 1994b	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	$\frac{CW \times SA \times PC \times ET \times EV \times EF \times ED \times CF1 \times CF2}{BW \times AT}$
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				CF1	Conversion Factor 1	0.001	L/cm^3	- -	
				CF2	Conversion Factor 2	0.001	mg/Cg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

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TABLE 3-4.10.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Dredger	Adult	Sediment Cores (SC05 through SC13)	CS	Chemical Concentration in Sediment	see Table 3-3.9.RME	mg/kg	see Table 3-3.9.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1997a	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	167	days/year	Prof. Judgement	
				ED	Exposure Duration	2	years	Prof. Judgement	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Dredger	Adult	Sediment Cores (SC05 through SC13)	CS	Chemical Concentration in Sediment	see Table 3-3.9.RME	mg/kg	see Table 3-3.9.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	3,300	cm^2	USEPA, 2004d	CS x SA x AF x EF x ED x DAF x CF / BW x AT
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	167	days/year	Prof. Judgement	
				ED	Exposure Duration	2	years	Prof. Judgement	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Adult AF term is geometric mean value for adult gardeners.

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TABLE 3-4.10.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment Cores

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Dredger	Adult	Sediment Cores (SC05 through SC13)	CS	Chemical Concentration in Sediment	see Table 3-3.9.CT	mg/kg	see Table 3-3.9.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Sediment	200	mg/day	USEPA, 1997a	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	83	days/year	Prof. Judgement	
				ED	Exposure Duration	1	years	Prof. Judgement	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
Dermal	Dredger	Adult	Sediment Cores (SC05 through SC13)	CS	Chemical Concentration in Sediment	see Table 3-3.9.CT	mg/kg	see Table 3-3.9.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	3,300	cm^2	USEPA, 2004d	CS x SA x AF x EF x ED x DAF x CF / BW x AT
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	83	days/year	Prof. Judgement	
				ED	Exposure Duration	1	years	Prof. Judgement	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Adult AF term is geometric mean value for adult gardeners.

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TABLE 3-4.11.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Area Resident	Adult	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1997a	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	200	mg/day	USEPA, 1997a	$\frac{CS \times IR \times FI \times EF \times ED \times CF}{BW \times AT}$
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.11.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Area Resident	Adult	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	24	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.RME	mg/kg	see Table 3-3.4.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	6	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-4.11.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Area Resident	Adult	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	50	mg/day	USEPA, 1997a	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR	Ingestion Rate of Soil	100	mg/day	USEPA, 1997a	CS x IR x FI x EF x ED x CF / BW x AT
				FI	Fraction Ingested	1	unitless	Prof. Judgement	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				BW	Body Weight	15	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

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TABLE 3-4.11.CT

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Area Resident	Adult	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.07	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	7	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	70	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	
		Young Child	Adjacent Residences to Stations 07/DP, AJRW, WS/WSS, KF, and CB-05	CS	Chemical Concentration in Soil	see Table 3-3.4.CT	mg/kg	see Table 3-3.4.CT	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	USEPA, 2004d	$\frac{CS \times SA \times AF \times EF \times ED \times DAF \times CF}{BW \times AT}$
				AF	Skin Adherence Factor	0.2	mg/cm^2-day	USEPA, 2004d	
				EF	Exposure Frequency	150	days/year	USEPA, 1994b	
				ED	Exposure Duration	2	years	USEPA, 1994b	
				DAF	Dermal Absorption Factor	chemical specific	- -	- -	
				BW	Body Weight	15	kg	USEPA, 1997a	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				CF	Conversion Factor	0.000001	kg/mg	- -	

Adult SA term assumes exposure to face, forearms, hands, and lower legs.

Young child SA term assumes exposure to face, forearms, hands, lower legs, and feet.

Adult AF term is geometric mean value for adult gardeners.

Young child AF term is geometric mean value for children playing in wet soil.

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TABLE 3-5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units	(1)	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Chloroform	Chronic	1E-02	mg/kg-day	(4)	1E-02	mg/kg-day	Liver	1000	IRIS	08/01/04
Tetrachloroethene	Chronic	1E-02	mg/kg-day	(4)	1E-02	mg/kg-day	Liver	1000	IRIS	08/01/04
Trichloroethene	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Liver	3000	NCEA	08/01/04
Vinyl chloride	Chronic	3E-03	mg/kg-day	(4)	3E-03	mg/kg-day	Liver	30	IRIS	08/01/04
Benzo(a)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene [3]	Chronic	2E-02	mg/kg-day	(4)	2E-02	mg/kg-day	General Toxicity	3000	IRIS	08/01/04
4,4'-DDD	Chronic	2E-03	mg/kg-day	(4)	2E-03	mg/kg-day	Immune System	300	NCEA	08/01/04
4,4'-DDE	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Developmental	3000	NCEA	08/01/04
4,4'-DDT	Chronic	5E-04	mg/kg-day	(4)	5E-04	mg/kg-day	Liver	100	IRIS	08/01/04
Aldrin	Chronic	3E-05	mg/kg-day	(4)	3E-05	mg/kg-day	Liver	1000	IRIS	08/01/04
alpha-Chlordane	Chronic	5E-04	mg/kg-day	(4)	5E-04	mg/kg-day	Liver	300	IRIS	08/01/04
Aroclor 1248 [3]	Chronic	2E-05	mg/kg-day	(4)	2E-05	mg/kg-day	Immune System	300	IRIS	08/01/04
Aroclor 1254	Chronic	2E-05	mg/kg-day	(4)	2E-05	mg/kg-day	Immune System	300	IRIS	08/01/04
Aroclor 1260 [3]	Chronic	2E-05	mg/kg-day	(4)	2E-05	mg/kg-day	Immune System	300	IRIS	08/01/04
delta-BHC [3]	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Liver/Kidney	1000	IRIS	08/01/04
Dieldrin	Chronic	5E-05	mg/kg-day	(4)	5E-05	mg/kg-day	Liver	100	IRIS	08/01/04
Heptachlor epoxide	Chronic	1.3E-05	mg/kg-day	(4)	1.3E-05	mg/kg-day	Liver	1000	IRIS	08/01/04
Antimony	Chronic	4E-04	mg/kg-day	0.15	6.0E-05	mg/kg-day	Blood	1000	IRIS	08/01/04
Arsenic [6]	Chronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Skin	3	IRIS	08/01/04
Barium	Chronic	7E-02	mg/kg-day	0.07	4.9E-03	mg/kg-day	Cardiovascular	3	IRIS	08/01/04
Cadmium (food)	Chronic	1E-03	mg/kg-day	0.025	2.5E-05	mg/kg-day	Kidney	10	IRIS	08/01/04
Chromium (III)	Chronic	1.5E+00	mg/kg-day	0.013	2.0E-02	mg/kg-day	General Toxicity	1000	IRIS	08/01/04
Chromium (VI)	Chronic	3E-03	mg/kg-day	0.025	7.5E-05	mg/kg-day	Gastrointestinal System	300	IRIS	08/01/04

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TABLE 3-5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal (1)	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Copper	Chronic	3E-02	mg/kg-day	(4)	3E-02	mg/kg-day	Kidney	1000	NCEA	08/01/04
Lead [7]										
Manganese	Chronic	7E-02	mg/kg-day	0.04	2.8E-03	mg/kg-day	Nervous System	1	IRIS	08/01/04
Mercury (inorganic)	Chronic	3E-04	mg/kg-day	0.07	2.1E-05	mg/kg-day	Immune System	1000	IRIS	08/01/04
Mecury (organic)	Chronic	1E-04	mg/kg-day	(4)	1E-04	mg/kg-day	Nervous System	10	IRIS	08/01/04
Nickel	Chronic	2E-02	mg/kg-day	0.04	8.0E-04	mg/kg-day	General Toxicity	300	IRIS	08/01/04
Selenium	Chronic	5E-03	mg/kg-day	(4)	5E-03	mg/kg-day	Liver	3	IRIS	08/01/04
Thallium	Chronic	8E-05	mg/kg-day	(4)	8E-05	mg/kg-day	Blood	3000	IRIS	08/01/04
Vanadium	Chronic	1E-03	mg/kg-day	0.026	2.6E-05	mg/kg-day	Kidney	300	NCEA	08/01/04
Zinc	Chronic	3E-01	mg/kg-day	(4)	3E-01	mg/kg-day	Blood	3	IRIS	08/01/04

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TABLE 3-5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal (1)	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Antimony	Subchronic	4E-04	mg/kg-day	0.15	6.0E-05	mg/kg-day	Blood	1000	IRIS	08/01/04
Arsenic (6)	Subchronic	3E-04	mg/kg-day	(4)	3E-04	mg/kg-day	Skin	3	IRIS	08/01/04
Cadmium (food)	Subchronic	1E-03	mg/kg-day	0.025	2.5E-05	mg/kg-day	Kidney	10	IRIS	08/01/04
Copper	Subchronic	3E-01	mg/kg-day	(4)	3E-01	mg/kg-day	Kidney	100	NCEA	08/01/04
Lead (7)										
Manganese	Subchronic	7E-02	mg/kg-day	0.04	2.8E-03	mg/kg-day	Nervous System	1	IRIS	08/01/04
Mecury (organic)	Subchronic	1E-04	mg/kg-day	(4)	1E-04	mg/kg-day	Nervous System	10	IRIS	08/01/04
Vanadium	Subchronic	1E-02	mg/kg-day	0.026	2.6E-04	mg/kg-day	Kidney	30	NCEA	08/01/04
Zinc	Subchronic	3E-01	mg/kg-day	(4)	3E-01	mg/kg-day	Blood	3	IRIS	08/01/04

(1) All oral absorption efficiencies from USEPA, 2001b, except copper (from ASTDR, 2002).

(2) Calculated as: (oral RfD) x (oral to dermal adjustment factor).

(3) RfD for Aroclor 1254 used as a surrogate for Aroclor 1248 and Aroclor 1260.
RfD for gamma-BHC used as a surrogate for delta-BHC.
RfD for managanese is based on total allowable intake (10 mg/day) minus the background intake (5 mg/day). The remaining intake (5 mg/day) is divided by 70 kg.
RfD for thallium is based on thallium sulfate.
RfD for chlordane used as a surrogate for alpha-chlordane.
RfD for mercury (inorganic) based on mercuric chloride; for mercury (organic), based on methylmercury.
RfD for naphthalene used as a surrogate for phenanthrene.

(4) Oral absorption efficiency exceeds 50%. Therefore, no adjustment of the oral reference dose is necessary.

(5) Permeability constants (Kp) used for surface water absorption calculations: 1E-03 cm/hr for arsenic, cadmium, manganese, and mercury; 2E-03 cm/hr for chromium (USEPA, 2001b); for organics, see Appendix C.7.

(6) Used for all media and exposures except oral exposures to sediment (see Table 3-5.3).

(7) See Appendix C.10 for lead model calculations.

IRIS = Integrated Risk Information System
HEAST = Health Effects Assessment Summary Tables
N/A = Not Applicable
NCEA = National Center for Environmental Assessment

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TABLE 3-5.2

NON-CANCER TOXICITY DATA -- INHALATION

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)

NOT APPLICABLE

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TABLE 3-5.3
NON-CANCER TOXICITY DATA -- SPECIAL CASE CHEMICALS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Chronic/ Subchronic	Parameter			Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	Parameter:Target Organ(s)	
		Name	Value	Units			Source(s)	Date(s)
Arsenic	Chronic	Sediment Oral RfD adjusted for site-specific relative bioavailability	5.9E-04	mg/kg-day	skin	3	IRIS	08/01/04

RfD (adjusted) = RfD (IRIS) / RBA

IRIS = Integrated Risk Information System

RBA = Relative Bioavailability = 0.51 (site-specific; see Appendix C.9)

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TABLE 3-6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units	(1)	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Chloroform	N/A	N/A	N/A	N/A	N/A	B2	IRIS	08/01/04
Tetrachloroethene	5.4E-01	(mg/kg-day)$^{-1}$	(1)	5.4E-01	(mg/kg-day)$^{-1}$	B2	CalEPA	08/01/04
Trichloroethene	4.0E-01	(mg/kg-day)$^{-1}$	(1)	4.0E-01	(mg/kg-day)$^{-1}$	C-B2	NCEA	08/01/04
Vinyl chloride	1.5E+00	(mg/kg-day)$^{-1}$	(1)	1.5E+00	(mg/kg-day)$^{-1}$	C	IRIS	08/01/04
Benzo(a)anthracene	7.3E-01	(mg/kg-day)$^{-1}$	(1)	7.3E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Benzo(a)pyrene	7.3E+00	(mg/kg-day)$^{-1}$	(1)	7.3E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Benzo(b)fluoranthene	7.3E-01	(mg/kg-day)$^{-1}$	(1)	7.3E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Benzo(k)fluoranthene	7.3E-02	(mg/kg-day)$^{-1}$	(1)	7.3E-02	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Dibenz(a,h)anthracene	7.3E+00	(mg/kg-day)$^{-1}$	(1)	7.3E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Indeno(1,2,3-cd)pyrene	7.3E-01	(mg/kg-day)$^{-1}$	(1)	7.3E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Phenanthrene	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
4,4'-DDD	2.4E-01	(mg/kg-day)$^{-1}$	(1)	2.4E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
4,4'-DDE	3.4E-01	(mg/kg-day)$^{-1}$	(1)	3.4E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
4,4'-DDT	3.4E-01	(mg/kg-day)$^{-1}$	(1)	3.4E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Aldrin	1.7E+01	(mg/kg-day)$^{-1}$	(1)	1.7E+01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
alpha-Chlordane	3.5E-01	(mg/kg-day)$^{-1}$	(1)	3.5E-01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Aroclor 1248	2.0E+00	(mg/kg-day)$^{-1}$	(1)	2.0E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Aroclor 1254	2.0E+00	(mg/kg-day)$^{-1}$	(1)	2.0E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Aroclor 1260	2.0E+00	(mg/kg-day)$^{-1}$	(1)	2.0E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
delta-BHC	N/A	N/A	(1)	N/A	N/A	D	IRIS	08/01/04
Dieldrin	1.6E+01	(mg/kg-day)$^{-1}$	(1)	1.6E+01	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04
Heptachlor epoxide	9.1E+00	(mg/kg-day)$^{-1}$	(1)	9.1E+00	(mg/kg-day)$^{-1}$	B2	IRIS	08/01/04

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TABLE 3-6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal (1)	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Antimony	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Arsenic (3)	1.5E+00	(mg/kg-day) $^{-1}$	(1)	1.5E+00	(mg/kg-day) $^{-1}$	A	IRIS	08/01/04
Barium	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Cadmium	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Chromium (III)	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Chromium (VI)	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Copper	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Lead (4)								
Manganese	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Mercury (inorganic)	N/A	N/A	N/A	N/A	N/A	C	IRIS	08/01/04
Mercury (organic)	N/A	N/A	N/A	N/A	N/A	C	IRIS	08/01/04
Nickel	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Selenium	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Thallium	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Vanadium	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04
Zinc	N/A	N/A	N/A	N/A	N/A	D	IRIS	08/01/04

IRIS = Integrated Risk Information System
NCEA = National Center for Environmental Assessment
CalEPA = California Environmental Protection Agency
RME = Reasonable Maximum Exposure
CT = Central Tendency
N/A = Not Applicable
Slope factor for chlordane used as a surrogate for alpha-chlordane.
Slope factor for benzo(a)pyrene, along with the appropriate relative potency factor (USEPA, 1993), used for the other carcinogenic PAHs.

EPA Group:
A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C - Possible human carcinogen
D - Not classifiable as a human carcinogen (by the oral route)
E - Evidence of noncarcinogenicity

Weight of evidence for mercury (inorganic) based on mercuric chloride; for mercury (organic), based on methylmercury.
For PCBs, the RME slope factor is presented. A slope factor of 1 (mg/kg-day)$^{-1}$ is used for CT risk estimates (USEPA, 2003a).
(1) Oral absorption efficiency exceeds 50%. Therefore, no adjustment of the oral slope factor is necessary.
(2) Calculated as: (oral slope factor) / (oral to dermal adjustment factor)
(3) Used for all media and exposures except oral exposures to sediment (see Table 3-6.3).
(4) See Appendix C.10 for lead model calculations.

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TABLE 3-6.2

CANCER TOXICITY DATA -- INHALATION

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
NOT APPLICABLE							

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TABLE 3-6.3

CANCER TOXICITY DATA -- SPECIAL CASE CHEMICALS

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Parameter			Parameter:Target Organ(s)	
	Name	Value	Units	Source(s)	Date(s)
Arsenic	Sediment oral cancer slope factor adjusted for site-specific relative bioavailability	7.7E-01	(mg/kg-day) $^{-1}$	IRIS	08/01/04

SF (adjusted) = SF (IRIS) * RBA

IRIS = Integrated Risk Information System

RBA = Relative Bioavailability = 0.51 (site-specific; see Appendix C.9)

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TABLE 3-6.4

CANCER TOXICITY DATA -- EXTERNAL (RADIATION)

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Cancer Slope Factor		Source(s)	Date(s) (MM/DD/YYYY)
	Value	Units		
NOT APPLICABLE				

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.0E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	9.4E-09	3.0E-09	mg/kg-day	1.3E-05	mg/kg-day	2.3E-04
				Arsenic	5E+01	ug/L	3.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.5E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.6E-03
				Cadmium	3E+00	ug/L	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
				Chromium VI	6E+01	ug/L	9.4E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	7.5E-05	mg/kg-day	3.6E-02
				Lead												
				Manganese	6E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	6E-01	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	2.1E-05	mg/kg-day	6.7E-04
			Exp. Route Total								6E-07					5E-02
		Exposure Point Total									6E-07					5E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02
		Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	4.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.9E-04
				Chromium VI	2E+00	ug/L	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-08	mg/kg-day	7.5E-05	mg/kg-day	1.0E-03
				Manganese	4E+02	ug/L	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
			Exp. Route Total								6E-08					4E-03
		Exposure Point Total									6E-08					4E-03
		Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	4.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.9E-04
				Chromium VI	2E+00	ug/L	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-08	mg/kg-day	7.5E-05	mg/kg-day	1.0E-03
				Manganese	4E+02	ug/L	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
			Exp. Route Total								6E-08					4E-03
		Exposure Point Total									6E-08					4E-03

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03
				Lead												
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03
				Mercury	2E-01	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03
				Lead												
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03
				Mercury	2E-01	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	7.5E-05	mg/kg-day	4.8E-04
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	2E-01	ug/L	4.4E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.1E-05	mg/kg-day	6.1E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	7.5E-05	mg/kg-day	2.0E-03
				Lead												
				Manganese	5E+02	ug/L	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	7.9E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-02	mg/kg-day	2.3E-05
				Tetrachloroethene	2E+00	ug/L	1.0E-06	mg/kg-day	5.4E-01	$(mg/kg-day)^{-1}$	5.6E-07	3.0E-06	mg/kg-day	1.0E-02	mg/kg-day	3.0E-04
				Chromium VI	9E-01	ug/L	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
			Exp. Route Total								6E-07					3E-03
		Exposure Point Total									6E-07					3E-03

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03
		Station 03 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03
		Station 02 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	8.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	7.9E-04
				Chromium VI	2E+00	ug/L	3.9E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	3.0E-03	mg/kg-day	3.8E-05
				Lead												
				Manganese	7E+01	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.4E-06	mg/kg-day	7.0E-02	mg/kg-day	7.7E-05
				Mercury	4E-02	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	3.0E-04	mg/kg-day	1.0E-05
			Exp. Route Total								1E-07					9E-04
			Dermal													
				Arsenic	3E+00	ug/L	2.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.4E-08	8.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
				Chromium VI	2E+00	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	8.2E-08	mg/kg-day	7.5E-05	mg/kg-day	1.1E-03
				Lead												
				Manganese	7E+01	ug/L	6.7E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.8E-03	mg/kg-day	7.0E-04
				Mercury	4E-02	ug/L	3.8E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.2E-05
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									2E-07					3E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.9E-06	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	6E+01	mg/kg	9.8E-07	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.1E-05
				Cadmium	2E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	1.1E-04
				Chromium III	3E+02	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.5E-06
				Copper	3E+02	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.2E-04
				Lead												
				Manganese	2E+02	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Mercury	4E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Nickel	1E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	2.0E-02	mg/kg-day	3.6E-05
				Vanadium	3E+01	mg/kg	5.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-03	mg/kg-day	1.6E-03
				Zinc	5E+02	mg/kg	8.5E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	3.0E-01	mg/kg-day	8.2E-05
			Exp. Route Total								3E-06					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.7E-03
				Cadmium	2E+00	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	8.9E-09	mg/kg-day	2.5E-05	mg/kg-day	3.6E-04
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									4E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	1.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-08	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.1E-07	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-09	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.6E-06
				Antimony	1E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.0E-08	mg/kg-day	4.0E-04	mg/kg-day	1.3E-04
				Arsenic	7E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.9E-07	3.7E-06	mg/kg-day	5.9E-04	mg/kg-day	6.3E-03
				Barium	2E+01	mg/kg	3.2E-07	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	1E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.1E-08	mg/kg-day	1.0E-03	mg/kg-day	5.1E-05
				Chromium III	2E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.5E+00	mg/kg-day	7.3E-06
				Copper	6E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	3.0E-02	mg/kg-day	1.1E-04
				Lead												
				Manganese	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	1E+00	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	1.0E-04	mg/kg-day	7.1E-04
				Nickel	1E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Thallium	8E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	8.0E-05	mg/kg-day	5.2E-04
				Vanadium	1E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Zinc	3E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-01	mg/kg-day	4.6E-05
			Exp. Route Total								1E-06					9E-03
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-07	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.5E-09	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	6.9E-06
				Arsenic	7E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Cadmium	1E+00	mg/kg	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
			Exp. Route Total								6E-07					3E-03
		Exposure Point Total									2E-06					1E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	4.8E-08	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	2.6E-08	1.4E-07	mg/kg-day	1.0E-02	mg/kg-day	1.4E-05
				Trichloroethene	7E-01	mg/kg	1.2E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.9E-09	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04
				Benzo(a)anthracene	3E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.8E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	3.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	7.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.6E-09	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	9.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.9E-10	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	7.7E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.6E-09	2.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	8.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Aroclor 1260	3E-02	mg/kg	5.1E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.0E-09	1.5E-09	mg/kg-day	2.0E-05	mg/kg-day	7.4E-05
				Antimony	3E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.2E-02
				Arsenic	8E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-06	3.9E-06	mg/kg-day	5.9E-04	mg/kg-day	6.7E-03
				Barium	5E+01	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	7.0E-02	mg/kg-day	3.6E-05
				Cadmium	1E+00	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	1.0E-03	mg/kg-day	7.3E-05
				Chromium III	6E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	1.5E+00	mg/kg-day	2.2E-06
				Copper	3E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	5.0E-05
				Lead												
				Manganese	1E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	7.0E-02	mg/kg-day	8.5E-05
				Mercury	5E-01	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Nickel	1E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Vanadium	4E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03
				Zinc	1E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	3.0E-01	mg/kg-day	1.6E-05
			Exp. Route Total								1E-06					5E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	5.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	3.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.6E-08	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	8.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.8E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.1E-10	2.9E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	8.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	4.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-09	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.0E-02	mg/kg-day	1.3E-06
				Aroclor 1260	3E-02	mg/kg	5.7E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.1E-09	1.6E-09	mg/kg-day	2.0E-05	mg/kg-day	8.2E-05
				Arsenic	8E+01	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.8E-07	9.4E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	1E+00	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								5E-07					3E-03
		Exposure Point Total									2E-06					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	9.2E-10	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	3.7E-10	2.7E-09	mg/kg-day	3.0E-04	mg/kg-day	9.0E-06
				Benzo(a)anthracene	6E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.1E-09	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.7E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-07	5.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.9E-08	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	9.2E-10	3.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	5.6E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.1E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.4E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Aroclor 1260	6E-02	mg/kg	1.0E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-09	3.0E-09	mg/kg-day	2.0E-05	mg/kg-day	1.5E-04
				Antimony	3E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	4.0E-04	mg/kg-day	4.4E-03
				Arsenic	2E+03	mg/kg	3.3E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-05	9.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.6E-01
				Barium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.0E-02	mg/kg-day	6.7E-05
				Cadmium	1E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-03	mg/kg-day	5.5E-04
				Chromium III	1E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	1.5E+00	mg/kg-day	4.0E-05
				Copper	1E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Lead												
				Manganese	5E+02	mg/kg	8.9E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	7.0E-02	mg/kg-day	3.7E-04
				Mercury	3E+01	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Nickel	4E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Thallium	8E-01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	8.0E-05	mg/kg-day	4.9E-04
				Vanadium	1E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03
				Zinc	2E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.9E-04
				Chromium VI	2E+00	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	3.0E-03	mg/kg-day	2.6E-05
			Exp. Route Total								3E-05					2E-01
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	1.0E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.4E-09	3.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-07	5.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.0E-08	7.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	9.5E-10	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	5.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.2E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.8E-09	3.9E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Aroclor 1260	6E-02	mg/kg	1.1E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	2.3E-09	3.3E-09	mg/kg-day	2.0E-05	mg/kg-day	1.6E-04
				Arsenic	2E+03	mg/kg	8.0E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-05	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.8E-02
				Cadmium	1E+01	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	2.5E-05	mg/kg-day	1.7E-03
			Exp. Route Total								1E-05					8E-02
		Exposure Point Total									4E-05					3E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	7.3E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.9E-10	2.1E-09	mg/kg-day	3.0E-04	mg/kg-day	7.1E-06
				Benzo(a)anthracene	1E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	6.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-08	8.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	8.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.9E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	7.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	2.8E-09	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.0E-02	mg/kg-day	4.1E-07
				Aroclor 1260	1E-02	mg/kg	1.9E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	3.8E-10	5.6E-10	mg/kg-day	2.0E-05	mg/kg-day	2.8E-05
				Antimony	9E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	4.0E-04	mg/kg-day	1.2E-03
				Arsenic	3E+02	mg/kg	4.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.3E-05	mg/kg-day	5.9E-04	mg/kg-day	2.3E-02
				Barium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	7.0E-02	mg/kg-day	6.8E-05
				Cadmium	6E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	1.0E-03	mg/kg-day	3.2E-04
				Chromium III	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	1.5E+00	mg/kg-day	3.2E-05
				Copper	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Lead												
				Manganese	1E+03	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	7.0E-02	mg/kg-day	7.4E-04
				Mercury	3E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Nickel	3E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	8.8E-05
				Thallium	4E-01	mg/kg	7.6E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	8.0E-05	mg/kg-day	2.8E-04
				Vanadium	7E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	1.0E-03	mg/kg-day	3.3E-03
				Zinc	1E+03	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	3.0E-01	mg/kg-day	1.8E-04
			Exp. Route Total								4E-06					3E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	6.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-08	8.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.8E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	3.6E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.6E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	8.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.1E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	2.9E-09	mg/kg-day	N/A	N/A	N/A	8.4E-09	mg/kg-day	2.0E-02	mg/kg-day	4.2E-07
				Aroclor 1260	1E-02	mg/kg	2.1E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	4.3E-10	6.3E-10	mg/kg-day	2.0E-05	mg/kg-day	3.1E-05
				Arsenic	3E+02	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	6E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
			Exp. Route Total								2E-06					1E-02
		Exposure Point Total									5E-06					4E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.5E-03
				Arsenic	2E+02	mg/kg	1.6E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-05	4.6E-05	mg/kg-day	5.9E-04	mg/kg-day	7.8E-02
				Barium	1E+02	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	7.0E-02	mg/kg-day	4.1E-04
				Cadmium	1E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	2.2E-03
				Chromium III	7E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.5E+00	mg/kg-day	9.9E-05
				Copper	4E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.8E-03
				Lead												
				Manganese	1E+03	mg/kg	8.5E-05	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	7.0E-02	mg/kg-day	3.5E-03
				Mercury	1E+00	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Nickel	4E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	2.0E-02	mg/kg-day	3.7E-04
				Thallium	1E+00	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	8.0E-05	mg/kg-day	2.8E-03
				Vanadium	4E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	1.0E-03	mg/kg-day	9.1E-03
				Zinc	2E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
				Chromium VI	9E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	3.0E-03	mg/kg-day	6.4E-05
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	3.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.7E-02
				Cadmium	1E+01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	7.0E-03
			Exp. Route Total								6E-06					4E-02
		Exposure Point Total									2E-05					1E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	1.9E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.5E-05	5.5E-05	mg/kg-day	5.9E-04	mg/kg-day	9.3E-02
				Barium	3E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	7.0E-02	mg/kg-day	2.4E-05
				Cadmium	7E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	1.0E-03	mg/kg-day	3.6E-04
				Chromium III	5E+03	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.8E-04
				Copper	4E+03	mg/kg	6.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.4E-03
				Lead												
				Manganese	2E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-04	mg/kg-day	4.5E-02
				Nickel	8E+00	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Thallium	2E+00	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.6E-08	mg/kg-day	8.0E-05	mg/kg-day	9.5E-04
				Vanadium	2E+01	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	1.0E-03	mg/kg-day	1.1E-03
				Zinc	1E+03	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
				Chromium VI	7E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	1E+03	mg/kg	4.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	7E+00	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.2E-03
			Exp. Route Total								7E-06					5E-02
		Exposure Point Total									2E-05					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	4.0E-04	mg/kg-day	1.0E-03
				Arsenic	6E+01	mg/kg	4.0E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.1E-06	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.0E-02
				Barium	6E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.7E-04
				Cadmium	9E+00	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-03	mg/kg-day	1.9E-03
				Chromium III	3E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	6.8E-05	mg/kg-day	1.5E+00	mg/kg-day	4.5E-05
				Copper	7E+02	mg/kg	5.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.1E-03
				Lead												
				Manganese	7E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
				Mercury	3E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	6.0E-07	mg/kg-day	1.0E-04	mg/kg-day	6.0E-03
				Nickel	2E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	8.0E-05	mg/kg-day	6.5E-03
				Vanadium	8E+01	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	6E+02	mg/kg	4.5E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	3.0E-01	mg/kg-day	4.3E-04
			Exp. Route Total								3E-06					6E-02
			Dermal													
				Arsenic	6E+01	mg/kg	9.7E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-06	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	9.4E-03
				Cadmium	9E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	6.0E-03
			Exp. Route Total								1E-06					2E-02
		Exposure Point Total									5E-06					7E-02
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	4.0E-04	mg/kg-day	9.1E-04
				Arsenic	4E+01	mg/kg	2.9E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-06	8.4E-06	mg/kg-day	5.9E-04	mg/kg-day	1.4E-02
				Barium	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.0E-04
				Cadmium	4E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Chromium III	1E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.5E+00	mg/kg-day	1.9E-05
				Copper	1E+02	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	6.6E-04
				Lead												
				Manganese	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Mercury	3E-01	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.7E-08	mg/kg-day	1.0E-04	mg/kg-day	6.7E-04
				Nickel	1E+01	mg/kg	7.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Vanadium	3E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	1.0E-03	mg/kg-day	6.5E-03
				Zinc	3E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	3.0E-01	mg/kg-day	2.1E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	4E+01	mg/kg	6.9E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-06	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.7E-03
				Cadmium	4E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.2E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									3E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	6E+02	mg/kg	4.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-05	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01
				Barium	7E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	1E+01	mg/kg	9.1E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Chromium III	8E+02	mg/kg	5.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	1.5E+00	mg/kg-day	1.0E-04
				Copper	4E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-05	mg/kg-day	3.0E-02	mg/kg-day	2.6E-03
				Lead												
				Manganese	5E+02	mg/kg	3.2E-05	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	1.0E-04	mg/kg-day	5.0E-03
				Nickel	4E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	2.0E-02	mg/kg-day	3.8E-04
				Thallium	1E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	8.0E-05	mg/kg-day	2.5E-03
				Vanadium	6E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	2E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
			Exp. Route Total								3E-05					2E-01
			Dermal													
				Arsenic	6E+02	mg/kg	9.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	2.9E-05	mg/kg-day	3.0E-04	mg/kg-day	9.7E-02
				Cadmium	1E+01	mg/kg	7.3E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.5E-05	mg/kg-day	8.5E-03
			Exp. Route Total								1E-05					1E-01
		Exposure Point Total									5E-05					3E-01
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	2E+02	mg/kg	1.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.8E-06	3.7E-05	mg/kg-day	5.9E-04	mg/kg-day	6.3E-02
				Barium	8E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Cadmium	6E+00	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	3E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	1.5E+00	mg/kg-day	3.7E-05
				Copper	2E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	3.0E-02	mg/kg-day	1.7E-03
				Lead												
				Manganese	1E+03	mg/kg	9.6E-05	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	7.0E-02	mg/kg-day	4.0E-03
				Mercury	1E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-04	mg/kg-day	2.5E-03
				Nickel	8E+01	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	7.8E-04
				Thallium	5E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	8.0E-05	mg/kg-day	1.3E-02
				Vanadium	7E+01	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02
				Zinc	3E+03	mg/kg	2.1E-04	mg/kg-day	N/A	N/A	N/A	6.2E-04	mg/kg-day	3.0E-01	mg/kg-day	2.1E-03
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	3.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-06	8.9E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
				Cadmium	6E+00	mg/kg	3.2E-08	mg/kg-day	N/A	N/A	N/A	9.3E-08	mg/kg-day	2.5E-05	mg/kg-day	3.7E-03
			Exp. Route Total								5E-06					3E-02
		Exposure Point Total									1E-05					1E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	1E+02	mg/kg	9.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.5E-06	2.8E-05	mg/kg-day	5.9E-04	mg/kg-day	4.8E-02
				Barium	5E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Cadmium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Chromium III	5E+02	mg/kg	3.5E-05	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.5E+00	mg/kg-day	6.7E-05
				Copper	2E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.6E-03
				Lead												
				Manganese	9E+01	mg/kg	6.5E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	2.7E-04
				Mercury	3E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	6.9E-08	mg/kg-day	1.0E-04	mg/kg-day	6.9E-04
				Nickel	3E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.0E-02	mg/kg-day	2.8E-04
				Thallium	4E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	8.4E-07	mg/kg-day	8.0E-05	mg/kg-day	1.1E-02
				Vanadium	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	2E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
				Chromium VI	6E-01	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	3.0E-03	mg/kg-day	4.4E-05
			Exp. Route Total								8E-06					8E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	6.8E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	2E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02
			Exp. Route Total								4E-06					3E-02
		Exposure Point Total									1E-05					1E-01
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-06	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	6E+01	mg/kg	9.8E-07	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.1E-05
				Cadmium	5E+00	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-03	mg/kg-day	2.5E-04
				Chromium III	7E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	1.5E+00	mg/kg-day	2.4E-05
				Copper	4E+02	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	3.0E-02	mg/kg-day	7.4E-04
				Lead												
				Manganese	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	7.0E-02	mg/kg-day	4.7E-04
				Mercury	1E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	1.0E-04	mg/kg-day	6.6E-04
				Nickel	2E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.6E-05
				Vanadium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-03	mg/kg-day	4.7E-03
				Zinc	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	3.0E-01	mg/kg-day	1.0E-04
			Exp. Route Total								3E-06					3E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.6E-03
				Cadmium	5E+00	mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	7.9E-04
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									4E-06					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	5.8E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.2E-09	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.3E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.3E-08	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	9.9E-09	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.8E-10	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.1E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.3E-09	9.2E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.0E-02	mg/kg-day	9.9E-07
				Antimony	6E+00	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	4.0E-04	mg/kg-day	2.2E-03
				Arsenic	2E+02	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	9.5E-06	3.6E-05	mg/kg-day	5.9E-04	mg/kg-day	6.1E-02
				Barium	6E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	9.5E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Cadmium	6E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	1.0E-03	mg/kg-day	8.5E-04
				Chromium III	2E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.2E-04
				Copper	4E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Lead												
				Manganese	8E+02	mg/kg	4.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Mercury	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-04	mg/kg-day	5.2E-03
				Nickel	2E+01	mg/kg	8.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Vanadium	3E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-03	mg/kg-day	4.7E-03
				Zinc	9E+02	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.7E-04
				Chromium VI	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	3.0E-03	mg/kg-day	1.5E-04
			Exp. Route Total								1E-05					8E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.4E-09	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.6E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.5E-08	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.0E-08	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.4E-09	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.9E-10	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.4E-09	9.5E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.0E-06
				Arsenic	2E+02	mg/kg	3.0E-06	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.4E-06	8.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.9E-02
				Cadmium	6E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03
			Exp. Route Total								5E-06					3E-02
		Exposure Point Total									1E-05					1E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-08	7.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-07	7.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.1E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.6E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.1E-08	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.6E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.9E-04
				Arsenic	3E+01	mg/kg	1.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.4E-06	5.3E-06	mg/kg-day	5.9E-04	mg/kg-day	9.0E-03
				Barium	3E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.1E-06	mg/kg-day	7.0E-02	mg/kg-day	7.2E-05
				Cadmium	7E-01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-03	mg/kg-day	1.0E-04
				Chromium III	6E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	1.5E+00	mg/kg-day	6.0E-06
				Copper	6E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	3.0E-02	mg/kg-day	3.2E-04
				Lead												
				Manganese	3E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	5.8E-03
				Mercury	4E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	1.0E-04	mg/kg-day	5.9E-04
				Nickel	1E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.4E-05
				Thallium	1E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	8.0E-05	mg/kg-day	2.5E-03
				Vanadium	1E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03
				Zinc	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.2E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-07	8.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.2E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.8E-09	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-08	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	2.0E-02	mg/kg-day	1.5E-05
				Arsenic	3E+01	mg/kg	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.6E-07	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.2E-03
				Cadmium	7E-01	mg/kg	2.8E-09	mg/kg-day	N/A	N/A	N/A	8.3E-09	mg/kg-day	2.5E-05	mg/kg-day	3.3E-04
			Exp. Route Total								1E-06					5E-03
		Exposure Point Total									3E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	4.0E-04	mg/kg-day	2.5E-04
				Arsenic	1E+02	mg/kg	2.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-06	6.2E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	6E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Cadmium	4E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	1.0E-03	mg/kg-day	2.0E-04
				Chromium III	3E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.5E+00	mg/kg-day	1.1E-05
				Copper	2E+02	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.3E-04
				Lead												
				Manganese	1E+03	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	7.0E-02	mg/kg-day	8.3E-04
				Mercury	2E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-08	mg/kg-day	1.0E-04	mg/kg-day	9.7E-04
				Nickel	2E+01	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	4.6E-05
				Thallium	4E-01	mg/kg	7.7E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	8.0E-05	mg/kg-day	2.8E-04
				Vanadium	3E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-03	mg/kg-day	1.4E-03
				Zinc	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.8E-05	mg/kg-day	3.0E-01	mg/kg-day	1.6E-04
			Exp. Route Total								2E-06					1E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.6E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	4E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.3E-04
			Exp. Route Total								8E-07					6E-03
		Exposure Point Total									2E-06					2E-02
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	2.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.1E-06	7.9E-06	mg/kg-day	5.9E-04	mg/kg-day	1.3E-02
				Barium	4E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	7.0E-02	mg/kg-day	8.9E-05
				Cadmium	1E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	9E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.9E-06
				Copper	1E+02	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.7E-04
				Lead												
				Manganese	4E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.9E-04
				Mercury	9E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	1.4E-03
				Nickel	9E+00	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	6.9E-05
				Vanadium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	3E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	3.0E-01	mg/kg-day	1.8E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	5E+01	mg/kg	6.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.7E-07	1.9E-06	mg/kg-day	3.0E-04	mg/kg-day	6.3E-03
				Cadmium	1E+00	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.0E-04
			Exp. Route Total								1E-06					7E-03
		Exposure Point Total									3E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	7E-01	mg/kg	3.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-08	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	4.9E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-07	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	9.9E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.3E-08	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	7.6E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	8.4E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.1E-08	2.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	3.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-08	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	2E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.1E-04
				Arsenic	3E+01	mg/kg	1.5E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.2E-06	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	2E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-06	mg/kg-day	7.0E-02	mg/kg-day	4.6E-05
				Chromium III	1E+02	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	1E+02	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	6.8E-04
				Lead												
				Manganese	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.0E-04
				Mercury	1E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Nickel	2E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.5E-04
				Thallium	2E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.2E-03
				Vanadium	2E+01	mg/kg	9.2E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Zinc	5E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	3.0E-01	mg/kg-day	2.7E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	7E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	5.1E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-07	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.5E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	7.9E-09	3.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	8.7E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.3E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-08	mg/kg-day	2.0E-02	mg/kg-day	4.8E-06
				Arsenic	3E+01	mg/kg	3.6E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
			Exp. Route Total								1E-06					4E-03
		Exposure Point Total									3E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	1.2E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	4.6E-10	3.4E-09	mg/kg-day	3.0E-04	mg/kg-day	1.1E-05
				Benzo(a)anthracene	6E+00	mg/kg	2.9E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.1E-07	8.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	2.9E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.1E-06	8.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.6E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	4.8E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.5E-08	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.7E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.1E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.5E-07	5.9E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Aroclor 1260	7E-02	mg/kg	3.5E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.9E-09	1.0E-08	mg/kg-day	2.0E-05	mg/kg-day	5.1E-04
				Antimony	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	8.9E-04
				Arsenic	8E+01	mg/kg	4.2E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.2E-06	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.1E-02
				Barium	8E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Cadmium	5E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Chromium III	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.5E+00	mg/kg-day	2.5E-05
				Copper	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.2E-03
				Lead												
				Manganese	4E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	7.0E-02	mg/kg-day	9.1E-04
				Mercury	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	1.0E-04	mg/kg-day	4.2E-03
				Nickel	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	8.0E-05	mg/kg-day	4.2E-03
				Vanadium	5E+01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	1.0E-03	mg/kg-day	7.9E-03
				Zinc	1E+03	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-01	mg/kg-day	6.8E-04
			Exp. Route Total								7E-06					4E-02
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	3.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-07	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	3.0E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.2E-06	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.2E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	5.0E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.6E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.9E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.3E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.1E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.5E-07	6.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.4E-05
				Aroclor 1260	7E-02	mg/kg	3.9E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	7.8E-09	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.7E-04
				Arsenic	8E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-06	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.7E-03
				Cadmium	5E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.2E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								5E-06					1E-02
		Exposure Point Total									1E-05					6E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	4.0E-04	mg/kg-day	7.4E-04
				Arsenic	1E+02	mg/kg	7.8E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.0E-06	2.3E-05	mg/kg-day	5.9E-04	mg/kg-day	3.9E-02
				Barium	4E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	7.0E-02	mg/kg-day	8.9E-05
				Cadmium	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	4.4E-04
				Chromium III	9E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.9E-06
				Copper	5E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.5E-03
				Lead												
				Manganese	2E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	7.0E-02	mg/kg-day	4.6E-04
				Mercury	8E-01	mg/kg	4.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-04	mg/kg-day	1.2E-03
				Nickel	1E+01	mg/kg	7.6E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	8.0E-05	mg/kg-day	3.8E-03
				Vanadium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	2E+03	mg/kg	8.9E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04
			Exp. Route Total								6E-06					5E-02
			Dermal													
				Arsenic	1E+02	mg/kg	1.9E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.8E-06	5.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02
				Cadmium	3E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	3.5E-08	mg/kg-day	2.5E-05	mg/kg-day	1.4E-03
			Exp. Route Total								3E-06					2E-02
		Exposure Point Total									9E-06					7E-02
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.7E-04
				Arsenic	1E+02	mg/kg	2.1E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.6E-06	6.2E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	1E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.9E-05
				Cadmium	1E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Chromium III	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	1.5E+00	mg/kg-day	3.1E-05
				Copper	6E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-02	mg/kg-day	9.8E-04
				Lead												
				Manganese	4E+02	mg/kg	6.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.8E-04
				Mercury	3E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03
				Nickel	4E+01	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Thallium	1E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	8.0E-05	mg/kg-day	7.6E-04
				Vanadium	7E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	1.0E-03	mg/kg-day	3.7E-03
				Zinc	2E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.9E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.6E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	1E+01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								8E-07					7E-03
		Exposure Point Total									2E-06					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.8E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	1.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.6E-07	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	9.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.3E-09	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	6.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-08	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.7E-05
				Antimony	2E+00	mg/kg	9.4E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	4.0E-04	mg/kg-day	6.9E-04
				Arsenic	2E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-06	3.8E-06	mg/kg-day	5.9E-04	mg/kg-day	6.4E-03
				Barium	4E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	7.0E-02	mg/kg-day	9.4E-05
				Cadmium	2E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Chromium III	1E+02	mg/kg	7.8E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.5E+00	mg/kg-day	1.5E-05
				Copper	8E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	4.1E-04
				Lead												
				Manganese	1E+03	mg/kg	5.0E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Mercury	1E+00	mg/kg	6.3E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	1.0E-04	mg/kg-day	1.8E-03
				Nickel	1E+01	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.2E-05
				Thallium	1E+00	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	8.0E-05	mg/kg-day	1.9E-03
				Vanadium	2E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	1.0E-03	mg/kg-day	3.0E-03
				Zinc	6E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	3.0E-01	mg/kg-day	2.9E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.9E-07	4.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	4.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.5E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	2.0E-02	mg/kg-day	1.7E-05
				Arsenic	2E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-07	9.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Cadmium	2E+00	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	2.5E-05	mg/kg-day	7.8E-04
			Exp. Route Total								2E-06					4E-03
		Exposure Point Total									4E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.8E-07	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.3E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	3.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.4E-09	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	5.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-08	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	7.6E-06
				Aroclor 1260	1E-01	mg/kg	5.8E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.7E-08	mg/kg-day	2.0E-05	mg/kg-day	8.4E-04
				Antimony	2E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	4.0E-04	mg/kg-day	6.5E-04
				Arsenic	9E+01	mg/kg	4.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.3E-05	mg/kg-day	5.9E-04	mg/kg-day	2.2E-02
				Barium	8E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Cadmium	5E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	1.0E-03	mg/kg-day	7.9E-04
				Chromium III	2E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	1.5E+00	mg/kg-day	2.0E-05
				Copper	2E+02	mg/kg	8.9E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-02	mg/kg-day	8.7E-04
				Lead												
				Manganese	5E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	7E-01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	2.0E-02	mg/kg-day	2.0E-04
				Vanadium	5E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-03	mg/kg-day	7.5E-03
				Zinc	1E+03	mg/kg	7.4E-05	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.2E-04
			Exp. Route Total								4E-06					4E-02
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	7.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.2E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-07	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-08	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	3.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.4E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	3.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.5E-08	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	7.9E-06
				Aroclor 1260	1E-01	mg/kg	6.4E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.3E-08	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	9.4E-04
				Arsenic	9E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	5E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	6.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								2E-06					1E-02
		Exposure Point Total									6E-06					5E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	3E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.6E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.0E-08	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.0E-10	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-09	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	2.0E-02	mg/kg-day	3.5E-06
				Antimony	9E-01	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	4.0E-04	mg/kg-day	3.4E-04
				Arsenic	6E+00	mg/kg	3.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.5E-07	9.4E-07	mg/kg-day	5.9E-04	mg/kg-day	1.6E-03
				Barium	1E+01	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	7.0E-02	mg/kg-day	2.7E-05
				Cadmium	2E-01	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	1.0E-03	mg/kg-day	2.5E-05
				Chromium III	1E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.5E+00	mg/kg-day	1.0E-06
				Copper	2E+01	mg/kg	8.7E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	3.0E-02	mg/kg-day	8.4E-05
				Lead												
				Manganese	1E+02	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Nickel	7E+00	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.5E-05
				Thallium	5E-01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	7.9E-08	mg/kg-day	8.0E-05	mg/kg-day	9.9E-04
				Vanadium	1E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	1.0E-03	mg/kg-day	1.8E-03
				Zinc	2E+02	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	3.0E-01	mg/kg-day	7.8E-05
			Exp. Route Total								4E-07					5E-03
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.9E-09	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.3E-08	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	9.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.7E-09	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.3E-10	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.0E-02	mg/kg-day	3.7E-06
				Arsenic	6E+00	mg/kg	7.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.5E-04
				Cadmium	2E-01	mg/kg	6.9E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.1E-05
			Exp. Route Total								2E-07					8E-04
		Exposure Point Total									6E-07					6E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	3.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.2E-06	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	3.4E-02
				Cadmium	2E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	1.1E-04
				Chromium VI	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.7E-06	mg/kg-day	3.0E-03	mg/kg-day	2.9E-03
				Copper	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.7E-06	mg/kg-day	3.0E-02	mg/kg-day	2.9E-04
				Manganese	8E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	7.0E-02	mg/kg-day	6.0E-04
				Mercury	2E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
				Vanadium	3E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Zinc	5E+02	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-01	mg/kg-day	8.9E-05
			Exp. Route Total								5E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.1E-03
				Cadmium	2E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	8.7E-09	mg/kg-day	2.5E-05	mg/kg-day	3.5E-04
			Exp. Route Total								1E-06					8E-03
		Exposure Point Total									7E-06					5E-02
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	7.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-06	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Cadmium	4E-01	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.5E-08	mg/kg-day	1.0E-03	mg/kg-day	7.5E-05
				Chromium VI	2E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	3.0E-03	mg/kg-day	1.2E-03
				Copper	3E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	3.0E-02	mg/kg-day	2.3E-04
				Manganese	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	7.0E-02	mg/kg-day	5.5E-04
				Mercury	1E-01	mg/kg	8.2E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Thallium	1E+00	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	8.0E-05	mg/kg-day	3.0E-03
				Vanadium	2E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-01	mg/kg-day	4.9E-05
			Exp. Route Total								1E-06					2E-02
			Dermal													
				Arsenic	1E+01	mg/kg	1.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-07	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Cadmium	4E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	6.0E-09	mg/kg-day	2.5E-05	mg/kg-day	2.4E-04
			Exp. Route Total								3E-07					2E-03
		Exposure Point Total									1E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	4.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.3E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.1E-02
				Cadmium	7E-01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-03	mg/kg-day	1.4E-04
				Chromium VI	1E+02	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03
				Copper	5E+01	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.4E-04
				Manganese	2E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.6E-05	mg/kg-day	7.0E-02	mg/kg-day	6.6E-04
				Mercury	3E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	1.0E-04	mg/kg-day	5.9E-04
				Thallium	2E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	8.0E-05	mg/kg-day	4.2E-03
				Vanadium	3E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	5.3E-03
				Zinc	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	3.0E-01	mg/kg-day	1.1E-04
			Exp. Route Total								6E-06					6E-02
			Dermal													
				Arsenic	6E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-06	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.7E-03
				Cadmium	7E-01	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	2.5E-05	mg/kg-day	4.4E-04
			Exp. Route Total								1E-06					1E-02
		Exposure Point Total									8E-06					7E-02
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	1.0E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	3.0E-05	mg/kg-day	3.0E-04	mg/kg-day	9.9E-02
				Cadmium	5E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	7.0E-04
				Chromium VI	4E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-03	mg/kg-day	2.0E-02
				Copper	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Manganese	3E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	4.4E-04	mg/kg-day	7.0E-02	mg/kg-day	6.2E-03
				Mercury	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-04	mg/kg-day	5.2E-03
				Thallium	3E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	8.0E-05	mg/kg-day	6.4E-03
				Vanadium	4E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	1.0E-03	mg/kg-day	5.8E-03
				Zinc	6E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	9.0E-05	mg/kg-day	3.0E-01	mg/kg-day	3.0E-04
			Exp. Route Total								2E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-06	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02
				Cadmium	5E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								4E-06					3E-02
		Exposure Point Total									2E-05					2E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	2.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-06	7.0E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	1E+00	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-03	mg/kg-day	2.2E-04
				Chromium VI	1E+02	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	3.0E-03	mg/kg-day	6.1E-03
				Copper	1E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.5E-04
				Manganese	8E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03
				Mercury	7E-01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Vanadium	3E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	1.0E-03	mg/kg-day	4.4E-03
				Zinc	4E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
			Exp. Route Total								4E-06					4E-02
			Dermal													
				Arsenic	5E+01	mg/kg	5.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.6E-07	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.6E-03
				Cadmium	1E+00	mg/kg	5.9E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.5E-05	mg/kg-day	6.9E-04
			Exp. Route Total								9E-07					6E-03
		Exposure Point Total									4E-06					4E-02
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	6.8E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	2E-01	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	1.0E-03	mg/kg-day	2.9E-05
				Chromium VI	1E+02	mg/kg	7.3E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	3.0E-03	mg/kg-day	7.1E-03
				Copper	1E+02	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.1E-04
				Manganese	3E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	7.0E-02	mg/kg-day	7.2E-04
				Mercury	1E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Thallium	2E+00	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	8.0E-05	mg/kg-day	3.6E-03
				Vanadium	3E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	2E+04	mg/kg	9.9E-04	mg/kg-day	N/A	N/A	N/A	2.9E-03	mg/kg-day	3.0E-01	mg/kg-day	9.7E-03
			Exp. Route Total								3E-06					5E-02
			Dermal													
				Arsenic	4E+01	mg/kg	5.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-07	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	5.4E-03
				Cadmium	2E-01	mg/kg	7.9E-10	mg/kg-day	N/A	N/A	N/A	2.3E-09	mg/kg-day	2.5E-05	mg/kg-day	9.2E-05
			Exp. Route Total								8E-07					6E-03
		Exposure Point Total									4E-06					6E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	2.1E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	5.1E-08	6.2E-07	mg/kg-day	2.0E-03	mg/kg-day	3.1E-04
				4,4'-DDE	2E-02	mg/kg	5.1E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.7E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				4,4'-DDT	3E-03	mg/kg	9.0E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.0E-08	2.6E-07	mg/kg-day	5.0E-04	mg/kg-day	5.2E-04
				Aldrin	3E-04	mg/kg	1.0E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.7E-07	3.0E-08	mg/kg-day	3.0E-05	mg/kg-day	9.9E-04
				alpha-Chlordane	6E-03	mg/kg	1.8E-07	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	6.4E-08	5.4E-07	mg/kg-day	5.0E-04	mg/kg-day	1.1E-03
				Aroclor-1254	2E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-06	2.0E-06	mg/kg-day	2.0E-05	mg/kg-day	1.0E-01
				Aroclor-1260	6E-02	mg/kg	2.0E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	4.0E-06	5.8E-06	mg/kg-day	2.0E-05	mg/kg-day	2.9E-01
				delta-BHC	6E-04	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	3.0E-04	mg/kg-day	1.8E-04
				Dieldrin	2E-03	mg/kg	7.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.1E-06	2.1E-07	mg/kg-day	5.0E-05	mg/kg-day	4.1E-03
				Heptachlor epoxide	8E-04	mg/kg	2.7E-08	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.5E-07	7.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.0E-03
				Antimony	9E-02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	4.0E-04	mg/kg-day	2.2E-02
				Lead												
				Mercury	4E-01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-04	mg/kg-day	3.4E-01
				Selenium	6E-01	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	5.0E-03	mg/kg-day	1.1E-02
			Exp. Route Total								7E-06					8E-01
		Exposure Point Total									7E-06					8E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	5.0E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.5E-06	mg/kg-day	2.0E-03	mg/kg-day	7.3E-04
				4,4'-DDE	9E-02	mg/kg	2.7E-06	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	9.3E-07	8.0E-06	mg/kg-day	3.0E-04	mg/kg-day	2.7E-02
				4,4'-DDT	8E-03	mg/kg	2.6E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	8.7E-08	7.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.5E-03
				Aldrin	5E-04	mg/kg	1.7E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	2.9E-07	4.9E-08	mg/kg-day	3.0E-05	mg/kg-day	1.6E-03
				alpha-Chlordane	3E-03	mg/kg	8.1E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.8E-08	2.4E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04
				Aroclor-1254	9E-02	mg/kg	2.7E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.4E-06	7.9E-06	mg/kg-day	2.0E-05	mg/kg-day	4.0E-01
				Aroclor-1260	2E-01	mg/kg	6.0E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.2E-05	1.7E-05	mg/kg-day	2.0E-05	mg/kg-day	8.7E-01
				Dieldrin	2E-03	mg/kg	4.8E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	7.6E-07	1.4E-07	mg/kg-day	5.0E-05	mg/kg-day	2.8E-03
				Antimony	8E-02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	4.0E-04	mg/kg-day	1.8E-02
				Lead												
				Mercury	3E-01	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01
				Selenium	7E-01	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.3E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02
			Exp. Route Total								2E-05					2E+00
		Exposure Point Total									2E-05					2E+00

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	6.4E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.5E-07	1.9E-06	mg/kg-day	2.0E-03	mg/kg-day	9.3E-04
				4,4'-DDE	6E-02	mg/kg	1.9E-06	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	6.3E-07	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02
				4,4'-DDT	5E-03	mg/kg	1.5E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	5.1E-08	4.4E-07	mg/kg-day	5.0E-04	mg/kg-day	8.7E-04
				Aldrin	5E-04	mg/kg	1.7E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	2.9E-07	4.9E-08	mg/kg-day	3.0E-05	mg/kg-day	1.6E-03
				alpha-Chlordane	8E-03	mg/kg	2.7E-07	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	9.3E-08	7.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.6E-03
				Aroclor-1248	8E-03	mg/kg	2.5E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.0E-07	7.3E-07	mg/kg-day	2.0E-05	mg/kg-day	3.7E-02
				Aroclor-1254	1E-01	mg/kg	4.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	8.1E-06	1.2E-05	mg/kg-day	2.0E-05	mg/kg-day	5.9E-01
				Aroclor-1260	8E-02	mg/kg	2.5E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.0E-06	7.3E-06	mg/kg-day	2.0E-05	mg/kg-day	3.6E-01
				Dieldrin	2E-03	mg/kg	7.3E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.2E-06	2.1E-07	mg/kg-day	5.0E-05	mg/kg-day	4.3E-03
				Heptachlor epoxide	5E-04	mg/kg	1.7E-08	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.5E-07	4.9E-08	mg/kg-day	1.3E-05	mg/kg-day	3.8E-03
				Arsenic	2E-01	mg/kg	5.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.5E-06	1.5E-05	mg/kg-day	3.0E-04	mg/kg-day	4.9E-02
				Lead												
				Mercury	2E-01	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-04	mg/kg-day	1.9E-01
				Selenium	6E-01	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02
			Exp. Route Total								2E-05					1E+00
		Exposure Point Total									2E-05					1E+00
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.5E-09	1.6E-09	mg/kg-day	1.3E-05	mg/kg-day	1.2E-04
				Arsenic	5E+01	ug/L	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-08	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Cadmium	4E-01	ug/L	3.7E-10	mg/kg-day	N/A	N/A	N/A	3.7E-09	mg/kg-day	2.5E-05	mg/kg-day	1.5E-04
				Chromium VI	6E+01	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.5E-05	mg/kg-day	1.4E-02
				Lead												
				Manganese	6E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03
				Mercury	6E-01	ug/L	5.3E-10	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.1E-05	mg/kg-day	2.5E-04
			Exp. Route Total								6E-08					2E-02
		Exposure Point Total									6E-08					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station AM	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station KF	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.6E-05
				Chromium VI	2E+00	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	7.5E-05	mg/kg-day	1.7E-04
				Manganese	4E+02	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.8E-03	mg/kg-day	3.7E-04
			Exp. Route Total								3E-09					6E-04
		Exposure Point Total									3E-09					6E-04
		Station 08	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.6E-05
				Chromium VI	2E+00	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	7.5E-05	mg/kg-day	1.7E-04
				Manganese	4E+02	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.8E-03	mg/kg-day	3.7E-04
			Exp. Route Total								3E-09					6E-04
		Exposure Point Total									3E-09					6E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station LP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station AS	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station 06	Dermal													
		(Reach 4)		Chromium VI	4E+00	ug/L	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	7.5E-05	mg/kg-day	3.3E-04
				Lead												
				Manganese	5E+02	ug/L	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.8E-03	mg/kg-day	5.2E-04
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station 05	Dermal													
		(Reach 5)		Chloroform	1E+00	ug/L	5.4E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	1.0E-02	mg/kg-day	5.4E-06
				Tetrachloroethene	2E+00	ug/L	7.1E-08	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-08	7.1E-07	mg/kg-day	1.0E-02	mg/kg-day	7.1E-05
				Chromium VI	9E-01	ug/L	4.9E-10	mg/kg-day	N/A	N/A	N/A	4.9E-09	mg/kg-day	7.5E-05	mg/kg-day	6.6E-05
				Manganese	3E+02	ug/L	9.3E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	2.8E-03	mg/kg-day	3.3E-04
			Exp. Route Total								4E-08					5E-04
		Exposure Point Total									4E-08					5E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04
		Station 03	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04
		Station 02	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	1.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-09	1.5E-08	mg/kg-day	3.0E-04	mg/kg-day	5.1E-05
				Chromium VI	2E+00	ug/L	7.3E-10	mg/kg-day	N/A	N/A	N/A	7.3E-09	mg/kg-day	3.0E-03	mg/kg-day	2.4E-06
				Lead												
				Manganese	7E+01	ug/L	3.5E-08	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	7.0E-02	mg/kg-day	5.0E-06
				Mercury	4E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	3.0E-04	mg/kg-day	6.5E-07
			Exp. Route Total								2E-09					6E-05
			Dermal													
				Arsenic	3E+00	ug/L	5.5E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.2E-10	5.5E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05
				Chromium VI	2E+00	ug/L	5.3E-10	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	7.5E-05	mg/kg-day	7.0E-05
				Lead												
				Manganese	7E+01	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	2.8E-03	mg/kg-day	4.5E-05
				Mercury	4E-02	ug/L	7.0E-12	mg/kg-day	N/A	N/A	N/A	7.0E-11	mg/kg-day	2.1E-05	mg/kg-day	3.4E-06
			Exp. Route Total								8E-10					1E-04
		Exposure Point Total									3E-09					2E-04
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	5.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.2E-07	5.5E-06	mg/kg-day	5.9E-04	mg/kg-day	9.2E-03
				Barium	6E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	7.0E-02	mg/kg-day	2.0E-05
				Cadmium	2E+00	mg/kg	5.6E-09	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	1.0E-03	mg/kg-day	5.6E-05
				Chromium III	3E+02	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	6.4E-06	mg/kg-day	1.5E+00	mg/kg-day	4.3E-06
				Copper	3E+02	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	3.0E-02	mg/kg-day	2.6E-04
				Lead												
				Manganese	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	7.0E-02	mg/kg-day	9.0E-05
				Mercury	4E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Vanadium	3E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Zinc	5E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-01	mg/kg-day	4.1E-05
			Exp. Route Total								4E-07					1E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.9E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.7E-03
				Cadmium	2E+00	mg/kg	8.9E-10	mg/kg-day	N/A	N/A	N/A	8.9E-09	mg/kg-day	2.5E-05	mg/kg-day	3.6E-04
			Exp. Route Total								4E-07					9E-03
		Exposure Point Total									8E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	2.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-08	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-09	3.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	2.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.0E-10	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.9E-06
				Antimony	9E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	4.0E-04	mg/kg-day	5.8E-05
				Arsenic	6E+01	mg/kg	1.6E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.6E-06	mg/kg-day	5.9E-04	mg/kg-day	2.6E-03
				Barium	2E+01	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	4.0E-07	mg/kg-day	7.0E-02	mg/kg-day	5.8E-06
				Cadmium	6E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	1.0E-03	mg/kg-day	1.6E-05
				Chromium III	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.5E+00	mg/kg-day	1.8E-06
				Copper	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	4.8E-05
				Lead												
				Manganese	1E+02	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	7.0E-02	mg/kg-day	4.8E-05
				Mercury	6E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	1.0E-04	mg/kg-day	1.5E-04
				Nickel	7E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.3E-06
				Thallium	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	8.0E-05	mg/kg-day	1.6E-04
				Vanadium	1E+01	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	1.0E-03	mg/kg-day	2.9E-04
				Zinc	2E+02	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	3.0E-01	mg/kg-day	1.9E-05
			Exp. Route Total								1E-07					3E-03
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	5.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	4.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.4E-08	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	5.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.2E-10	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	7.9E-09	mg/kg-day	N/A	N/A	N/A	7.9E-08	mg/kg-day	2.0E-02	mg/kg-day	4.0E-06
				Arsenic	6E+01	mg/kg	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	7.5E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Cadmium	6E-01	mg/kg	2.6E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.0E-04
			Exp. Route Total								2E-07					3E-03
		Exposure Point Total									3E-07					6E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	7.0E-09	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	3.8E-09	7.0E-08	mg/kg-day	1.0E-02	mg/kg-day	7.0E-06
				Trichloroethene	7E-01	mg/kg	1.8E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.1E-10	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	5.9E-05
				Benzo(a)anthracene	3E-01	mg/kg	7.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.6E-10	7.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	5.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.7E-09	5.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.3E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.8E-11	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	1.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.2E-10	1.1E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	5.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.1E-10	5.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	2.0E-02	mg/kg-day	5.1E-07
				Aroclor 1260	3E-02	mg/kg	7.4E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.4E-11	7.4E-10	mg/kg-day	2.0E-05	mg/kg-day	3.7E-05
				Antimony	7E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	4.0E-04	mg/kg-day	4.4E-03
				Arsenic	8E+01	mg/kg	2.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.5E-07	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.3E-03
				Barium	5E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.8E-05
				Cadmium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	1.0E-03	mg/kg-day	3.6E-05
				Chromium III	6E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.5E+00	mg/kg-day	1.1E-06
				Copper	3E+01	mg/kg	7.5E-08	mg/kg-day	N/A	N/A	N/A	7.5E-07	mg/kg-day	3.0E-02	mg/kg-day	2.5E-05
				Lead												
				Manganese	1E+02	mg/kg	3.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Mercury	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	1.0E-04	mg/kg-day	1.2E-04
				Nickel	1E+01	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.0E-02	mg/kg-day	1.4E-05
				Vanadium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Zinc	1E+02	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	3.0E-01	mg/kg-day	8.1E-06
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.7E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.6E-10	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	2.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.5E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.1E-06
				Aroclor 1260	3E-02	mg/kg	1.6E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.6E-10	1.6E-09	mg/kg-day	2.0E-05	mg/kg-day	8.2E-05
				Arsenic	8E+01	mg/kg	9.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	9.4E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	1E+00	mg/kg	5.8E-10	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								2E-07					3E-03
		Exposure Point Total									3E-07					1E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	1.3E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.4E-11	1.3E-09	mg/kg-day	3.0E-04	mg/kg-day	4.5E-06
				Benzo(a)anthracene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.0E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	2.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	7.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	7.9E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.7E-10	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	2.0E-02	mg/kg-day	5.5E-07
				Aroclor 1260	4E-02	mg/kg	1.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.0E-10	1.0E-09	mg/kg-day	2.0E-05	mg/kg-day	5.2E-05
				Antimony	3E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	8.9E-07	mg/kg-day	4.0E-04	mg/kg-day	2.2E-03
				Arsenic	2E+03	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-06	4.9E-05	mg/kg-day	5.9E-04	mg/kg-day	8.2E-02
				Barium	9E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	7.0E-02	mg/kg-day	3.4E-05
				Cadmium	1E+01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	1.0E-03	mg/kg-day	2.7E-04
				Chromium III	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.5E+00	mg/kg-day	2.0E-05
				Copper	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	3.0E-02	mg/kg-day	1.0E-03
				Lead												
				Manganese	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Mercury	3E+01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-04	mg/kg-day	7.0E-03
				Nickel	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Thallium	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	8.0E-05	mg/kg-day	2.5E-04
				Vanadium	1E+02	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	1.0E-03	mg/kg-day	2.5E-03
				Zinc	2E+03	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
				Chromium VI	2E+00	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	3.0E-03	mg/kg-day	1.3E-05
			Exp. Route Total								4E-06					1E-01
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.9E-08	5.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	4.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.5E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	3.6E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.7E-10	3.6E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	2.0E-02	mg/kg-day	1.1E-06
				Aroclor 1260	4E-02	mg/kg	2.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.3E-10	2.3E-09	mg/kg-day	2.0E-05	mg/kg-day	1.2E-04
				Arsenic	2E+03	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.8E-02
				Cadmium	1E+01	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	2.5E-05	mg/kg-day	1.7E-03
			Exp. Route Total								4E-06					8E-02
		Exposure Point Total									7E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	1.1E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.3E-11	1.1E-09	mg/kg-day	3.0E-04	mg/kg-day	3.6E-06
				Benzo(a)anthracene	1E-01	mg/kg	3.3E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-10	3.3E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	4.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.0E-09	4.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	7.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.4E-10	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	5.1E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.7E-11	5.1E-09	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	1.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.5E-10	1.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	3.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.6E-10	3.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	4.1E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.0E-02	mg/kg-day	2.0E-07
				Aroclor 1260	1E-02	mg/kg	2.8E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-11	2.8E-10	mg/kg-day	2.0E-05	mg/kg-day	1.4E-05
				Antimony	9E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	4.0E-04	mg/kg-day	5.8E-04
				Arsenic	3E+02	mg/kg	6.7E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.1E-07	6.7E-06	mg/kg-day	5.9E-04	mg/kg-day	1.1E-02
				Barium	9E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	7.0E-02	mg/kg-day	3.4E-05
				Cadmium	6E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	1.5E+00	mg/kg-day	1.6E-05
				Copper	6E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	3.0E-02	mg/kg-day	5.3E-04
				Lead												
				Manganese	1E+03	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	7.0E-02	mg/kg-day	3.7E-04
				Mercury	3E+00	mg/kg	7.5E-09	mg/kg-day	N/A	N/A	N/A	7.5E-08	mg/kg-day	1.0E-04	mg/kg-day	7.5E-04
				Nickel	3E+01	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	8.8E-07	mg/kg-day	2.0E-02	mg/kg-day	4.4E-05
				Thallium	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.4E-04
				Vanadium	7E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Zinc	1E+03	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-01	mg/kg-day	9.2E-05
			Exp. Route Total								5E-07					2E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	6.9E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-10	6.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	8.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.2E-09	8.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.7E-11	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	2.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	7.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.4E-10	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	8.4E-10	mg/kg-day	N/A	N/A	N/A	8.4E-09	mg/kg-day	2.0E-02	mg/kg-day	4.2E-07
				Aroclor 1260	1E-02	mg/kg	6.3E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	6.3E-11	6.3E-10	mg/kg-day	2.0E-05	mg/kg-day	3.1E-05
				Arsenic	3E+02	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.8E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	6E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
			Exp. Route Total								5E-07					1E-02
		Exposure Point Total									1E-06					3E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	4.0E-04	mg/kg-day	9.4E-04
				Arsenic	2E+02	mg/kg	1.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.3E-06	1.7E-05	mg/kg-day	5.9E-04	mg/kg-day	2.9E-02
				Barium	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Cadmium	1E+01	mg/kg	8.2E-08	mg/kg-day	N/A	N/A	N/A	8.2E-07	mg/kg-day	1.0E-03	mg/kg-day	8.2E-04
				Chromium III	7E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	1.5E+00	mg/kg-day	3.7E-05
				Copper	4E+02	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Lead												
				Manganese	1E+03	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	1E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	8.4E-09	mg/kg-day	N/A	N/A	N/A	8.4E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	4E+01	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	1.0E-03	mg/kg-day	3.4E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.2E-04
				Chromium VI	9E-01	mg/kg	7.2E-09	mg/kg-day	N/A	N/A	N/A	7.2E-08	mg/kg-day	3.0E-03	mg/kg-day	2.4E-05
			Exp. Route Total								1E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-06	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02
				Cadmium	1E+01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								1E-06					3E-02
		Exposure Point Total									3E-06					7E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	2.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.1E-06	2.7E-05	mg/kg-day	5.9E-04	mg/kg-day	4.7E-02
				Barium	3E+01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	8.3E-07	mg/kg-day	7.0E-02	mg/kg-day	1.2E-05
				Cadmium	7E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	1.0E-03	mg/kg-day	1.8E-04
				Chromium III	5E+03	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.5E+00	mg/kg-day	9.0E-05
				Copper	4E+03	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	9.6E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Lead												
				Manganese	2E+02	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	7.0E-02	mg/kg-day	7.5E-05
				Mercury	9E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-04	mg/kg-day	2.3E-02
				Nickel	8E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	2.0E-02	mg/kg-day	1.0E-05
				Thallium	2E+00	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	8.0E-05	mg/kg-day	4.8E-04
				Vanadium	2E+01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	1.0E-03	mg/kg-day	5.3E-04
				Zinc	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	3.0E-01	mg/kg-day	9.9E-05
				Chromium VI	7E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	3.0E-03	mg/kg-day	5.9E-05
			Exp. Route Total								2E-06					7E-02
			Dermal													
				Arsenic	1E+03	mg/kg	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	7E+00	mg/kg	2.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-06					5E-02
		Exposure Point Total									4E-06					1E-01

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	4.0E-04	mg/kg-day	3.9E-04
				Arsenic	6E+01	mg/kg	4.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-07	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	6E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	7.0E-02	mg/kg-day	6.4E-05
				Cadmium	9E+00	mg/kg	7.1E-08	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	1.0E-03	mg/kg-day	7.1E-04
				Chromium III	3E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.7E-05
				Copper	7E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	3.0E-02	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	7.0E-02	mg/kg-day	7.5E-04
				Mercury	3E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03
				Nickel	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	7.8E-05
				Thallium	3E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	8.0E-05	mg/kg-day	2.4E-03
				Vanadium	8E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	6.1E-06	mg/kg-day	1.0E-03	mg/kg-day	6.1E-03
				Zinc	6E+02	mg/kg	4.9E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	3.0E-01	mg/kg-day	1.6E-04
			Exp. Route Total								3E-07					2E-02
			Dermal													
				Arsenic	6E+01	mg/kg	2.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.2E-07	2.1E-06	mg/kg-day	3.0E-04	mg/kg-day	7.1E-03
				Cadmium	9E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									7E-07					3E-02
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	4.0E-04	mg/kg-day	3.4E-04
				Arsenic	4E+01	mg/kg	3.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.4E-07	3.2E-06	mg/kg-day	5.9E-04	mg/kg-day	5.4E-03
				Barium	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	4E+00	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	1.0E-03	mg/kg-day	2.9E-04
				Chromium III	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.5E+00	mg/kg-day	7.3E-06
				Copper	1E+02	mg/kg	7.4E-07	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	3.0E-02	mg/kg-day	2.5E-04
				Lead												
				Manganese	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.8E-05
				Mercury	3E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	1.0E-04	mg/kg-day	2.5E-04
				Nickel	1E+01	mg/kg	7.6E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	2.0E-02	mg/kg-day	3.8E-05
				Vanadium	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	1.0E-03	mg/kg-day	2.4E-03
				Zinc	3E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.0E-05
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Arsenic	4E+01	mg/kg	1.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.0E-03
				Cadmium	4E+00	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	4.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					7E-03
		Exposure Point Total									5E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	4.0E-04	mg/kg-day	2.9E-04
				Arsenic	6E+02	mg/kg	4.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	4.5E-05	mg/kg-day	5.9E-04	mg/kg-day	7.7E-02
				Barium	7E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	5.1E-06	mg/kg-day	7.0E-02	mg/kg-day	7.3E-05
				Cadmium	1E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Chromium III	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	1.5E+00	mg/kg-day	2.3E-05
				Copper	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-02	mg/kg-day	9.6E-04
				Lead												
				Manganese	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.1E-04
				Mercury	2E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	7.4E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	8.0E-05	mg/kg-day	9.2E-04
				Vanadium	6E+01	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.3E-04
			Exp. Route Total								3E-06					9E-02
			Dermal													
				Arsenic	6E+02	mg/kg	2.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-06	2.2E-05	mg/kg-day	3.0E-04	mg/kg-day	7.2E-02
				Cadmium	1E+01	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.5E-05	mg/kg-day	6.4E-03
			Exp. Route Total								3E-06					8E-02
		Exposure Point Total									7E-06					2E-01
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	9.1E-04
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	1.4E-05	mg/kg-day	5.9E-04	mg/kg-day	2.4E-02
				Barium	8E+01	mg/kg	5.8E-07	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	7.0E-02	mg/kg-day	8.4E-05
				Cadmium	6E+00	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	4.4E-04
				Chromium III	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.5E+00	mg/kg-day	1.4E-05
				Copper	2E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	3.0E-02	mg/kg-day	6.2E-04
				Lead												
				Manganese	1E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	7.0E-02	mg/kg-day	1.5E-03
				Mercury	1E+00	mg/kg	9.2E-09	mg/kg-day	N/A	N/A	N/A	9.2E-08	mg/kg-day	1.0E-04	mg/kg-day	9.2E-04
				Nickel	8E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	2.0E-02	mg/kg-day	2.9E-04
				Thallium	1E+00	mg/kg	8.6E-09	mg/kg-day	N/A	N/A	N/A	8.6E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	7E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	1.0E-03	mg/kg-day	5.2E-03
				Zinc	3E+03	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	3.0E-01	mg/kg-day	7.8E-04
			Exp. Route Total								1E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	6.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-06	6.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.2E-02
				Cadmium	6E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	7.0E-08	mg/kg-day	2.5E-05	mg/kg-day	2.8E-03
			Exp. Route Total								1E-06					2E-02
		Exposure Point Total									2E-06					6E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	9.0E-04
				Arsenic	1E+02	mg/kg	1.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.2E-07	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	5E+01	mg/kg	3.9E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	7.0E-02	mg/kg-day	5.6E-05
				Cadmium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium III	5E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.5E+00	mg/kg-day	2.5E-05
				Copper	2E+02	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	3.0E-02	mg/kg-day	6.0E-04
				Lead												
				Manganese	9E+01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	7.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.0E-04
				Mercury	3E-01	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	1.0E-04	mg/kg-day	2.6E-04
				Nickel	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	4E+00	mg/kg	3.2E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	8.0E-05	mg/kg-day	3.9E-03
				Vanadium	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	5.5E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.3E-04
				Chromium VI	6E-01	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	3.0E-03	mg/kg-day	1.6E-05
			Exp. Route Total								8E-07					3E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.7E-07	5.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	2E+01	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.5E-05	mg/kg-day	8.4E-03
			Exp. Route Total								8E-07					3E-02
		Exposure Point Total									2E-06					6E-02
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	5.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.1E-07	5.4E-06	mg/kg-day	5.9E-04	mg/kg-day	9.1E-03
				Barium	6E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	7.0E-02	mg/kg-day	2.0E-05
				Cadmium	5E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-03	mg/kg-day	1.2E-04
				Chromium III	7E+02	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	2E+02	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	3.0E-02	mg/kg-day	1.4E-04
				Lead												
				Manganese	3E+02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	8.5E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Mercury	1E+00	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	1.0E-04	mg/kg-day	3.3E-04
				Nickel	2E+01	mg/kg	5.6E-08	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.8E-05
				Vanadium	9E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Zinc	6E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	3.0E-01	mg/kg-day	5.2E-05
			Exp. Route Total								4E-07					1E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.9E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.6E-03
				Cadmium	5E+00	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	7.9E-04
			Exp. Route Total								4E-07					9E-03
		Exposure Point Total									8E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	2.8E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.0E-10	2.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	3.6E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	2.6E-09	3.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	5.9E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.3E-10	5.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	2.5E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	1.8E-11	2.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	1.5E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.1E-10	1.5E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	3.3E-10	mg/kg-day	N/A	N/A	N/A	3.3E-09	mg/kg-day	2.0E-02	mg/kg-day	1.7E-07
				Antimony	6E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.7E-04
				Arsenic	2E+02	mg/kg	6.0E-07	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	4.6E-07	6.0E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.0E-02	mg/kg-day	2.3E-05
				Cadmium	6E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-03	mg/kg-day	1.4E-04
				Chromium III	6E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.5E+00	mg/kg-day	9.7E-06
				Copper	4E+02	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.4E-04
				Lead												
				Manganese	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Mercury	3E+00	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	8.7E-08	mg/kg-day	1.0E-04	mg/kg-day	8.7E-04
				Nickel	2E+01	mg/kg	3.9E-08	mg/kg-day	N/A	N/A	N/A	3.9E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Vanadium	3E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Zinc	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	7.9E-05
				Chromium VI	7E-01	mg/kg	1.9E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	3.0E-03	mg/kg-day	6.3E-06
			Exp. Route Total								5E-07					1E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	5.8E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.2E-10	5.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.4E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.4E-09	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	9.0E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.2E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.8E-11	5.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.2E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.3E-10	3.2E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	6.9E-10	mg/kg-day	N/A	N/A	N/A	6.9E-09	mg/kg-day	2.0E-02	mg/kg-day	3.4E-07
				Arsenic	2E+02	mg/kg	2.9E-07	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.3E-07	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.6E-03
				Cadmium	6E+00	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	2.5E-05	mg/kg-day	9.1E-04
			Exp. Route Total								4E-07					1E-02
		Exposure Point Total									9E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	8.9E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	1.3E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.3E-09	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.4E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-09	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	3.1E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	2.2E-10	3.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	2.0E-10	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-09	2.0E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	6.4E-10	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.7E-10	6.4E-09	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	4.0E-04	mg/kg-day	6.4E-05
				Arsenic	3E+01	mg/kg	8.9E-08	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.8E-08	8.9E-07	mg/kg-day	5.9E-04	mg/kg-day	1.5E-03
				Barium	3E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	8.4E-07	mg/kg-day	7.0E-02	mg/kg-day	1.2E-05
				Cadmium	7E-01	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	1.0E-03	mg/kg-day	1.7E-05
				Chromium III	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.5E+00	mg/kg-day	1.0E-06
				Copper	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-02	mg/kg-day	5.4E-05
				Lead												
				Manganese	4E+02	mg/kg	9.3E-07	mg/kg-day	N/A	N/A	N/A	9.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	4E-01	mg/kg	9.8E-10	mg/kg-day	N/A	N/A	N/A	9.8E-09	mg/kg-day	1.0E-04	mg/kg-day	9.8E-05
				Nickel	1E+01	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
				Thallium	1E+00	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	8.0E-05	mg/kg-day	4.1E-04
				Vanadium	1E+01	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	3.5E-04
				Zinc	2E+02	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-01	mg/kg-day	2.0E-05
			Exp. Route Total								8E-08					3E-03
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.8E-09	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.7E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.9E-08	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.0E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	5.1E-09	7.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.4E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	4.7E-10	6.4E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.2E-10	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.1E-09	4.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.7E-10	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.0E-02	mg/kg-day	8.1E-07
				Arsenic	3E+01	mg/kg	4.2E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-08	4.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Cadmium	7E-01	mg/kg	2.8E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					4E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	5.1E-08	mg/kg-day	4.0E-04	mg/kg-day	1.3E-04
				Arsenic	1E+02	mg/kg	3.1E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.4E-07	3.1E-06	mg/kg-day	5.9E-04	mg/kg-day	5.2E-03
				Barium	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	7.0E-02	mg/kg-day	2.1E-05
				Cadmium	4E+00	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	9.9E-08	mg/kg-day	1.0E-03	mg/kg-day	9.9E-05
				Chromium III	3E+02	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	1.5E+00	mg/kg-day	5.5E-06
				Copper	2E+02	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	3.0E-02	mg/kg-day	1.7E-04
				Lead												
				Manganese	1E+03	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	7.0E-02	mg/kg-day	4.1E-04
				Mercury	2E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	1.0E-04	mg/kg-day	4.8E-04
				Nickel	2E+01	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.3E-05
				Thallium	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.4E-04
				Vanadium	3E+01	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Zinc	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.0E-05
			Exp. Route Total								2E-07					7E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	4E+00	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.3E-04
			Exp. Route Total								2E-07					6E-03
		Exposure Point Total									5E-07					1E-02
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-07	1.3E-06	mg/kg-day	5.9E-04	mg/kg-day	2.2E-03
				Barium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.5E-05
				Cadmium	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	1.0E-03	mg/kg-day	2.6E-05
				Chromium III	9E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.5E+00	mg/kg-day	1.5E-06
				Copper	1E+02	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.5E-05
				Lead												
				Manganese	4E+02	mg/kg	9.2E-07	mg/kg-day	N/A	N/A	N/A	9.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	9E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	1.0E-04	mg/kg-day	2.3E-04
				Nickel	9E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05
				Vanadium	2E+01	mg/kg	5.9E-08	mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	1.0E-03	mg/kg-day	5.9E-04
				Zinc	3E+02	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.0E-05
			Exp. Route Total								1E-07					3E-03
			Dermal													
				Arsenic	5E+01	mg/kg	6.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	1E+00	mg/kg	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	2.5E-05	mg/kg-day	1.7E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					6E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.0E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	3.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	2.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.4E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	4.0E-04	mg/kg-day	6.6E-05
				Arsenic	2E+01	mg/kg	4.8E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-08	4.8E-07	mg/kg-day	5.9E-04	mg/kg-day	8.1E-04
				Barium	2E+01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	7.0E-02	mg/kg-day	6.9E-06
				Chromium III	5E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.5E+00	mg/kg-day	9.2E-07
				Copper	7E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	3.0E-02	mg/kg-day	6.2E-05
				Lead												
				Manganese	2E+02	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	7.0E-02	mg/kg-day	5.8E-05
				Mercury	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	1.0E-04	mg/kg-day	1.2E-04
				Nickel	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.0E-02	mg/kg-day	1.6E-05
				Thallium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	8.0E-05	mg/kg-day	4.6E-04
				Vanadium	1E+01	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	1.0E-03	mg/kg-day	3.8E-04
				Zinc	4E+02	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.0E-05
			Exp. Route Total								5E-08					2E-03
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	3.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.4E-08	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	6.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.9E-09	6.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	7.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.2E-10	7.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	4.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.6E-09	4.9E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.3E-06
				Arsenic	2E+01	mg/kg	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.6E-04
			Exp. Route Total								7E-08					8E-04
		Exposure Point Total									1E-07					3E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	5.6E-11	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-11	5.6E-10	mg/kg-day	3.0E-04	mg/kg-day	1.9E-06
				Benzo(a)anthracene	6E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-07	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	2.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	2.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	2.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-08	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.2E-09	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.7E-06
				Aroclor 1260	7E-02	mg/kg	1.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.7E-10	1.7E-09	mg/kg-day	2.0E-05	mg/kg-day	8.4E-05
				Antimony	2E+00	mg/kg	5.9E-09	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	4.0E-04	mg/kg-day	1.5E-04
				Arsenic	8E+01	mg/kg	2.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-07	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.4E-03
				Barium	8E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.0E-02	mg/kg-day	3.1E-05
				Cadmium	5E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	1.0E-03	mg/kg-day	1.3E-04
				Chromium III	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	1.5E+00	mg/kg-day	4.2E-06
				Copper	2E+02	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.0E-04
				Lead												
				Manganese	4E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	3E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	1.0E-04	mg/kg-day	7.1E-04
				Nickel	3E+01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	2.0E-02	mg/kg-day	3.5E-05
				Thallium	2E+00	mg/kg	5.6E-09	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	8.0E-05	mg/kg-day	7.0E-04
				Vanadium	5E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Zinc	1E+03	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	3.0E-01	mg/kg-day	1.1E-04
			Exp. Route Total								3E-07					7E-03
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	2.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-07	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	4.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.5E-09	4.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-08	5.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Aroclor 1260	7E-02	mg/kg	3.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.8E-10	3.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.9E-04
				Arsenic	8E+01	mg/kg	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-07	9.7E-07	mg/kg-day	3.0E-04	mg/kg-day	3.2E-03
				Cadmium	5E+00	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.5E-05	mg/kg-day	8.3E-04
			Exp. Route Total								5E-07					4E-03
		Exposure Point Total									8E-07					1E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	4.0E-04	mg/kg-day	1.2E-04
				Arsenic	1E+02	mg/kg	3.8E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.9E-07	3.8E-06	mg/kg-day	5.9E-04	mg/kg-day	6.5E-03
				Barium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.5E-05
				Cadmium	3E+00	mg/kg	7.4E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	1.0E-03	mg/kg-day	7.4E-05
				Chromium III	9E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.5E+00	mg/kg-day	1.5E-06
				Copper	5E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	4.1E-04
				Lead												
				Manganese	2E+02	mg/kg	5.3E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	7.0E-02	mg/kg-day	7.6E-05
				Mercury	8E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	1.0E-04	mg/kg-day	2.1E-04
				Nickel	1E+01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Thallium	2E+00	mg/kg	5.0E-09	mg/kg-day	N/A	N/A	N/A	5.0E-08	mg/kg-day	8.0E-05	mg/kg-day	6.3E-04
				Vanadium	2E+01	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	1.0E-03	mg/kg-day	5.8E-04
				Zinc	2E+03	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	3.0E-01	mg/kg-day	1.4E-04
			Exp. Route Total								3E-07					9E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.1E-03
				Cadmium	3E+00	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.7E-04
			Exp. Route Total								3E-07					7E-03
		Exposure Point Total									6E-07					2E-02
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	6.4E-09	mg/kg-day	N/A	N/A	N/A	6.4E-08	mg/kg-day	4.0E-04	mg/kg-day	1.6E-04
				Arsenic	1E+02	mg/kg	3.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-07	3.0E-06	mg/kg-day	5.9E-04	mg/kg-day	5.0E-03
				Barium	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	7.0E-02	mg/kg-day	3.7E-05
				Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	1.0E-03	mg/kg-day	3.0E-04
				Chromium III	7E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.5E+00	mg/kg-day	1.3E-05
				Copper	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-02	mg/kg-day	4.3E-04
				Lead												
				Manganese	4E+02	mg/kg	9.7E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Mercury	3E+00	mg/kg	7.8E-09	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	1.0E-04	mg/kg-day	7.8E-04
				Nickel	4E+01	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	2.0E-02	mg/kg-day	4.7E-05
				Thallium	1E+00	mg/kg	2.7E-09	mg/kg-day	N/A	N/A	N/A	2.7E-08	mg/kg-day	8.0E-05	mg/kg-day	3.4E-04
				Vanadium	7E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Zinc	2E+03	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.9E-04
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-07	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.7E-03
				Cadmium	1E+01	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					7E-03
		Exposure Point Total									4E-07					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.0E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	8.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.4E-09	8.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	9.0E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.6E-10	9.0E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	6.5E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.7E-11	6.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	4.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.2E-10	4.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.0E-02	mg/kg-day	8.7E-07
				Antimony	9E-01	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	4.0E-04	mg/kg-day	6.0E-05
				Arsenic	8E+00	mg/kg	2.1E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.1E-07	mg/kg-day	5.9E-04	mg/kg-day	3.6E-04
				Barium	3E+01	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	8.8E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	2E-01	mg/kg	5.6E-10	mg/kg-day	N/A	N/A	N/A	5.6E-09	mg/kg-day	1.0E-03	mg/kg-day	5.6E-06
				Chromium III	3E+01	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	1.5E+00	mg/kg-day	5.7E-07
				Copper	3E+01	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	3.0E-02	mg/kg-day	2.1E-05
				Lead												
				Manganese	4E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	9E-02	mg/kg	2.3E-10	mg/kg-day	N/A	N/A	N/A	2.3E-09	mg/kg-day	1.0E-04	mg/kg-day	2.3E-05
				Nickel	1E+01	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.3E-05
				Thallium	6E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	8.0E-05	mg/kg-day	2.0E-04
				Vanadium	2E+01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	1.0E-03	mg/kg-day	4.8E-04
				Zinc	1E+02	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	3.0E-01	mg/kg-day	1.0E-05
			Exp. Route Total								2E-08					1E-03
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-08	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.8E-11	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	9.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.7E-10	9.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	2.0E-02	mg/kg-day	1.8E-06
				Arsenic	8E+00	mg/kg	1.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-08	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.3E-04
				Cadmium	2E-01	mg/kg	8.9E-11	mg/kg-day	N/A	N/A	N/A	8.9E-10	mg/kg-day	2.5E-05	mg/kg-day	3.6E-05
			Exp. Route Total								3E-08					4E-04
		Exposure Point Total									6E-08					2E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	6E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-09	1.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.6E-09	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	8.8E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.4E-11	8.8E-09	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	2.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-09	2.8E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	8.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.3E-10	8.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.0E-02	mg/kg-day	5.9E-07
				Aroclor 1260	5E-02	mg/kg	1.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.3E-10	1.3E-09	mg/kg-day	2.0E-05	mg/kg-day	6.3E-05
				Antimony	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	4.0E-04	mg/kg-day	5.1E-05
				Arsenic	3E+01	mg/kg	8.4E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.5E-08	8.4E-07	mg/kg-day	5.9E-04	mg/kg-day	1.4E-03
				Barium	4E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	8.9E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	2E+00	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	1.0E-03	mg/kg-day	4.4E-05
				Chromium III	7E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.5E+00	mg/kg-day	1.2E-06
				Copper	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-02	mg/kg-day	5.2E-05
				Lead												
				Manganese	2E+02	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.8E-05
				Mercury	3E-01	mg/kg	6.7E-10	mg/kg-day	N/A	N/A	N/A	6.7E-09	mg/kg-day	1.0E-04	mg/kg-day	6.7E-05
				Nickel	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.0E-02	mg/kg-day	1.6E-05
				Vanadium	2E+01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	5.7E-07	mg/kg-day	1.0E-03	mg/kg-day	5.7E-04
				Zinc	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.4E-05
			Exp. Route Total								8E-08					2E-03
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-09	3.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	3.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.3E-09	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	5.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-09	5.8E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-09	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Aroclor 1260	5E-02	mg/kg	2.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-10	2.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.4E-04
				Arsenic	3E+01	mg/kg	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-08	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Cadmium	2E+00	mg/kg	7.1E-10	mg/kg-day	N/A	N/A	N/A	7.1E-09	mg/kg-day	2.5E-05	mg/kg-day	2.8E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					4E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	2E-01	mg/kg	4.9E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.6E-10	4.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	4.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-09	4.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	4.2E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-10	4.2E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	4.5E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.3E-11	4.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	3.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-10	3.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.0E-02	mg/kg-day	5.9E-07
				Antimony	9E-01	mg/kg	2.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	4.0E-04	mg/kg-day	5.6E-05
				Arsenic	6E+00	mg/kg	1.6E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-07	mg/kg-day	5.9E-04	mg/kg-day	2.7E-04
				Barium	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	7.0E-02	mg/kg-day	4.5E-06
				Cadmium	2E-01	mg/kg	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	1.0E-03	mg/kg-day	4.2E-06
				Chromium III	8E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	1.5E+00	mg/kg-day	1.4E-07
				Copper	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	3.0E-02	mg/kg-day	9.9E-06
				Lead												
				Manganese	8E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.0E-02	mg/kg-day	3.0E-05
				Nickel	6E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.1E-06
				Thallium	5E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	8.0E-05	mg/kg-day	1.6E-04
				Vanadium	1E+01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Zinc	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	3.0E-01	mg/kg-day	8.7E-06
			Exp. Route Total								2E-08					8E-04
			Dermal													
				Benzo(a)anthracene	2E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.4E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	9.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.7E-09	9.2E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	8.7E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-10	8.7E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	9.3E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.8E-11	9.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.3E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-10	6.3E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Arsenic	6E+00	mg/kg	7.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-08	7.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Cadmium	2E-01	mg/kg	6.8E-11	mg/kg-day	N/A	N/A	N/A	6.8E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
			Exp. Route Total								2E-08					3E-04
		Exposure Point Total									4E-08					1E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.7E-07	5.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	2E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	1.0E-03	mg/kg-day	5.4E-05
				Chromium VI	2E+02	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	3.0E-03	mg/kg-day	1.5E-03
				Copper	2E+02	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	3.0E-02	mg/kg-day	1.5E-04
				Manganese	3E+02	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Mercury	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	1.0E-04	mg/kg-day	2.0E-04
				Vanadium	3E+01	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	1.0E-03	mg/kg-day	6.4E-04
				Zinc	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.5E-05
			Exp. Route Total								8E-07					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.1E-03
				Cadmium	2E+00	mg/kg	8.7E-10	mg/kg-day	N/A	N/A	N/A	8.7E-09	mg/kg-day	2.5E-05	mg/kg-day	3.5E-04
			Exp. Route Total								4E-07					8E-03
		Exposure Point Total									1E-06					3E-02
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	7.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Cadmium	2E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	1.0E-03	mg/kg-day	1.5E-05
				Chromium VI	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	3.0E-03	mg/kg-day	4.7E-04
				Copper	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	6.8E-05
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Mercury	1E-01	mg/kg	9.0E-10	mg/kg-day	N/A	N/A	N/A	9.0E-09	mg/kg-day	1.0E-04	mg/kg-day	9.0E-05
				Thallium	1E+00	mg/kg	9.1E-09	mg/kg-day	N/A	N/A	N/A	9.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	2E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	1.0E-03	mg/kg-day	1.8E-03
				Zinc	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	3.0E-01	mg/kg-day	1.8E-05
			Exp. Route Total								1E-07					6E-03
			Dermal													
				Arsenic	1E+01	mg/kg	3.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.5E-08	3.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.2E-03
				Cadmium	2E-01	mg/kg	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.4E-09	mg/kg-day	2.5E-05	mg/kg-day	9.5E-05
			Exp. Route Total								5E-08					1E-03
		Exposure Point Total									2E-07					8E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-07	4.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.5E-02
				Cadmium	7E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	5.2E-08	mg/kg-day	1.0E-03	mg/kg-day	5.2E-05
				Chromium VI	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	3.0E-03	mg/kg-day	3.5E-03
				Copper	5E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	3.0E-02	mg/kg-day	1.3E-04
				Manganese	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04
				Mercury	3E-01	mg/kg	2.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	1.0E-04	mg/kg-day	2.2E-04
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.6E-03
				Vanadium	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Zinc	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.2E-05
			Exp. Route Total								7E-07					2E-02
			Dermal													
				Arsenic	6E+01	mg/kg	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-07	2.2E-06	mg/kg-day	3.0E-04	mg/kg-day	7.3E-03
				Cadmium	7E-01	mg/kg	8.3E-10	mg/kg-day	N/A	N/A	N/A	8.3E-09	mg/kg-day	2.5E-05	mg/kg-day	3.3E-04
			Exp. Route Total								3E-07					8E-03
		Exposure Point Total									1E-06					3E-02
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	5.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.4E-07	5.0E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	1E+00	mg/kg	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.4E-08	mg/kg-day	1.0E-03	mg/kg-day	3.4E-05
				Chromium VI	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	3.0E-03	mg/kg-day	3.3E-03
				Copper	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	3.0E-02	mg/kg-day	2.1E-04
				Manganese	8E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04
				Mercury	1E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	1.0E-04	mg/kg-day	3.0E-04
				Thallium	3E+00	mg/kg	8.5E-09	mg/kg-day	N/A	N/A	N/A	8.5E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	4E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	1.0E-03	mg/kg-day	9.6E-04
				Zinc	6E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-01	mg/kg-day	5.0E-05
			Exp. Route Total								7E-07					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	7.9E-03
				Cadmium	1E+00	mg/kg	5.5E-10	mg/kg-day	N/A	N/A	N/A	5.5E-09	mg/kg-day	2.5E-05	mg/kg-day	2.2E-04
			Exp. Route Total								4E-07					8E-03
		Exposure Point Total									1E-06					3E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Cadmium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	1.0E-03	mg/kg-day	3.6E-05
				Chromium VI	1E+02	mg/kg	3.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	1.0E-03
				Copper	1E+02	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.2E-05
				Manganese	8E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	3.0E-04
				Mercury	7E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	1.0E-04	mg/kg-day	1.8E-04
				Vanadium	3E+01	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	1.0E-03	mg/kg-day	7.4E-04
				Zinc	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.3E-05
			Exp. Route Total								2E-07					6E-03
			Dermal													
				Arsenic	5E+01	mg/kg	5.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-08	5.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				Cadmium	1E+00	mg/kg	5.7E-10	mg/kg-day	N/A	N/A	N/A	5.7E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								8E-08					2E-03
		Exposure Point Total									3E-07					8E-03
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.8E-03
				Cadmium	2E-01	mg/kg	4.8E-10	mg/kg-day	N/A	N/A	N/A	4.8E-09	mg/kg-day	1.0E-03	mg/kg-day	4.8E-06
				Chromium VI	1E+02	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	3.0E-03	mg/kg-day	1.2E-03
				Copper	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	3.0E-02	mg/kg-day	8.6E-05
				Manganese	3E+02	mg/kg	8.4E-07	mg/kg-day	N/A	N/A	N/A	8.4E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Mercury	1E+00	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Thallium	2E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	8.0E-05	mg/kg-day	6.0E-04
				Vanadium	3E+01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	8.0E-07	mg/kg-day	1.0E-03	mg/kg-day	8.0E-04
				Zinc	2E+04	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	4.8E-04	mg/kg-day	3.0E-01	mg/kg-day	1.6E-03
			Exp. Route Total								2E-07					8E-03
			Dermal													
				Arsenic	4E+01	mg/kg	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.1E-08	5.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.8E-03
				Cadmium	2E-01	mg/kg	7.7E-11	mg/kg-day	N/A	N/A	N/A	7.7E-10	mg/kg-day	2.5E-05	mg/kg-day	3.1E-05
			Exp. Route Total								8E-08					2E-03
		Exposure Point Total									3E-07					1E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	2.4E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	5.7E-09	2.4E-07	mg/kg-day	2.0E-03	mg/kg-day	1.2E-04
				4,4'-DDE	2E-02	mg/kg	5.7E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	1.9E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				4,4'-DDT	3E-03	mg/kg	1.0E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	3.4E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04
				Aldrin	3E-04	mg/kg	1.1E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	1.9E-08	1.1E-08	mg/kg-day	3.0E-05	mg/kg-day	3.8E-04
				alpha-Chlordane	6E-03	mg/kg	2.1E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	7.2E-09	2.1E-07	mg/kg-day	5.0E-04	mg/kg-day	4.1E-04
				Aroclor-1254	2E-02	mg/kg	7.8E-08	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	7.8E-08	7.8E-07	mg/kg-day	2.0E-05	mg/kg-day	3.9E-02
				Aroclor-1260	6E-02	mg/kg	2.2E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	2.2E-07	2.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01
				delta-BHC	5E-04	mg/kg	1.9E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.4E-05
				Dieldrin	2E-03	mg/kg	7.9E-09	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	1.3E-07	7.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.6E-03
				Heptachlor epoxide	8E-04	mg/kg	3.0E-09	mg/kg-day	9.1E+00	$(mg/kg-day)^{-1}$	2.8E-08	3.0E-08	mg/kg-day	1.3E-05	mg/kg-day	2.3E-03
				Antimony	9E-02	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Lead												
				Mercury	4E-01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-04	mg/kg-day	1.3E-01
				Selenium	6E-01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	5.0E-03	mg/kg-day	4.1E-03
			Exp. Route Total								5E-07					3E-01
		Exposure Point Total									5E-07					3E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	5.6E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	1.4E-08	5.6E-07	mg/kg-day	2.0E-03	mg/kg-day	2.8E-04
				4,4'-DDE	9E-02	mg/kg	3.1E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	1.0E-07	3.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.0E-02
				4,4'-DDT	8E-03	mg/kg	2.9E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	9.8E-09	2.9E-07	mg/kg-day	5.0E-04	mg/kg-day	5.8E-04
				Aldrin	5E-04	mg/kg	1.9E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	3.2E-08	1.9E-08	mg/kg-day	3.0E-05	mg/kg-day	6.3E-04
				alpha-Chlordane	3E-03	mg/kg	9.1E-09	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	3.2E-09	9.1E-08	mg/kg-day	5.0E-04	mg/kg-day	1.8E-04
				Aroclor-1254	9E-02	mg/kg	3.1E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	3.1E-07	3.1E-06	mg/kg-day	2.0E-05	mg/kg-day	1.5E-01
				Aroclor-1260	2E-01	mg/kg	6.7E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	6.7E-07	6.7E-06	mg/kg-day	2.0E-05	mg/kg-day	3.4E-01
				Dieldrin	1E-03	mg/kg	5.3E-09	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	8.4E-08	5.3E-08	mg/kg-day	5.0E-05	mg/kg-day	1.1E-03
				Antimony	8E-02	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	4.0E-04	mg/kg-day	6.8E-03
				Lead												
				Mercury	3E-01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-04	mg/kg-day	1.1E-01
				Selenium	7E-01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	5.0E-03	mg/kg-day	4.8E-03
			Exp. Route Total								1E-06					6E-01
		Exposure Point Total									1E-06					6E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	7.1E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.7E-08	7.1E-07	mg/kg-day	2.0E-03	mg/kg-day	3.6E-04
				4,4'-DDE	6E-02	mg/kg	2.1E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	7.1E-08	2.1E-06	mg/kg-day	3.0E-04	mg/kg-day	6.9E-03
				4,4'-DDT	5E-03	mg/kg	1.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	5.7E-09	1.7E-07	mg/kg-day	5.0E-04	mg/kg-day	3.3E-04
				Aldrin	5E-04	mg/kg	1.9E-09	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	3.2E-08	1.9E-08	mg/kg-day	3.0E-05	mg/kg-day	6.3E-04
				alpha-Chlordane	8E-03	mg/kg	3.0E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	1.0E-08	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	6.0E-04
				Aroclor-1248	8E-03	mg/kg	2.8E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-08	2.8E-07	mg/kg-day	2.0E-05	mg/kg-day	1.4E-02
				Aroclor-1254	1E-01	mg/kg	4.6E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	4.6E-07	4.6E-06	mg/kg-day	2.0E-05	mg/kg-day	2.3E-01
				Aroclor-1260	8E-02	mg/kg	2.8E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-07	2.8E-06	mg/kg-day	2.0E-05	mg/kg-day	1.4E-01
				Dieldrin	2E-03	mg/kg	7.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.2E-07	7.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.5E-03
				Heptachlor epoxide	5E-04	mg/kg	1.9E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.7E-08	1.9E-08	mg/kg-day	1.3E-05	mg/kg-day	1.5E-03
				Arsenic	2E-01	mg/kg	5.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-07	5.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.9E-02
				Lead												
				Mercury	1E-01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	1.0E-04	mg/kg-day	5.2E-02
				Selenium	6E-01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	5.0E-03	mg/kg-day	4.5E-03
			Exp. Route Total								2E-06					5E-01
		Exposure Point Total									2E-06					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	2.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.4E-09	7.6E-10	mg/kg-day	1.3E-05	mg/kg-day	5.8E-05
				Arsenic	5E+01	ug/L	9.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Cadmium	3E+00	ug/L	5.0E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	5.8E-04
				Chromium VI	6E+01	ug/L	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	7.5E-05	mg/kg-day	9.1E-03
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	6E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.7E-04
			Exp. Route Total								1E-07					1E-02
		Exposure Point Total									1E-07					1E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.0E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	9.4E-09	3.0E-09	mg/kg-day	1.3E-05	mg/kg-day	2.3E-04
				Arsenic	5E+01	ug/L	3.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.5E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.6E-03
				Cadmium	3E+00	ug/L	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
				Chromium VI	6E+01	ug/L	9.4E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	7.5E-05	mg/kg-day	3.6E-02
				Lead												
				Manganese	6E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	6E-01	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	2.1E-05	mg/kg-day	6.7E-04
			Exp. Route Total								6E-07					5E-02
		Exposure Point Total									6E-07					5E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Arsenic	2E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	4.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Cadmium	2E-01	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.5E-05	mg/kg-day	2.1E-04
				Chromium VI	1E+01	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	7.5E-05	mg/kg-day	7.5E-03
				Lead												
				Manganese	8E+02	ug/L	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.4E-03
				Mercury	1E-01	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								4E-07					2E-02
		Exposure Point Total									4E-07					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	3.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.2E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Arsenic	2E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Cadmium	2E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium VI	1E+01	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	7.5E-05	mg/kg-day	5.6E-03
				Lead												
				Manganese	8E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	1E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02
		Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.0E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.1E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.8E-04
				Arsenic	2E+01	ug/L	3.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.8E-04
				Cadmium	2E-01	ug/L	4.6E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	5.3E-05
				Chromium VI	1E+01	ug/L	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	8E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	2.8E-03	mg/kg-day	1.6E-03
				Mercury	1E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									1E-07					5E-03
		Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	4.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.9E-04
				Chromium VI	2E+00	ug/L	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-08	mg/kg-day	7.5E-05	mg/kg-day	1.0E-03
				Manganese	4E+02	ug/L	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
			Exp. Route Total								6E-08					4E-03
		Exposure Point Total									6E-08					4E-03
		Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	4.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.9E-04
				Chromium VI	2E+00	ug/L	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-08	mg/kg-day	7.5E-05	mg/kg-day	1.0E-03
				Manganese	4E+02	ug/L	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
			Exp. Route Total								6E-08					4E-03
		Exposure Point Total									6E-08					4E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03
				Lead												
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03
				Mercury	2E-01	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03
				Lead												
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03
				Mercury	2E-01	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	7.5E-05	mg/kg-day	4.8E-04
				Lead												
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	2E-01	ug/L	4.4E-10	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.1E-05	mg/kg-day	6.1E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	7.5E-05	mg/kg-day	2.0E-03
				Lead												
				Manganese	5E+02	ug/L	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03
			Exp. Route Total								N/A					5E-03
		Exposure Point Total									N/A					5E-03
		Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	7.9E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-02	mg/kg-day	2.3E-05
				Tetrachloroethene	2E+00	ug/L	1.0E-06	mg/kg-day	5.4E-01	$(mg/kg-day)^{-1}$	5.6E-07	3.0E-06	mg/kg-day	1.0E-02	mg/kg-day	3.0E-04
				Chromium VI	9E-01	ug/L	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
			Exp. Route Total								6E-07					3E-03
		Exposure Point Total									6E-07					3E-03

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03
		Station 03 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03
		Station 02 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	3.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-08	9.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Chromium VI	4E+00	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Lead												
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	7E-02	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.1E-05	mg/kg-day	5.7E-05
			Exp. Route Total								5E-08					4E-03
		Exposure Point Total									5E-08					4E-03

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	8.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	7.9E-04
				Chromium VI	2E+00	ug/L	3.9E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	3.0E-03	mg/kg-day	3.8E-05
				Lead												
				Manganese	7E+01	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.4E-06	mg/kg-day	7.0E-02	mg/kg-day	7.7E-05
				Mercury	4E-02	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	3.0E-04	mg/kg-day	1.0E-05
			Exp. Route Total								1E-07					9E-04
			Dermal													
				Arsenic	3E+00	ug/L	2.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.4E-08	8.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
				Chromium VI	2E+00	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	8.2E-08	mg/kg-day	7.5E-05	mg/kg-day	1.1E-03
				Lead												
				Manganese	7E+01	ug/L	6.7E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.8E-03	mg/kg-day	7.0E-04
				Mercury	4E-02	ug/L	3.8E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.2E-05
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									2E-07					3E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.9E-06	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	6E+01	mg/kg	9.8E-07	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.1E-05
				Cadmium	2E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	1.1E-04
				Chromium III	3E+02	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.5E-06
				Copper	3E+02	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.2E-04
				Lead												
				Manganese	2E+02	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Mercury	4E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Nickel	1E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	2.0E-02	mg/kg-day	3.6E-05
				Vanadium	3E+01	mg/kg	5.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-03	mg/kg-day	1.6E-03
				Zinc	5E+02	mg/kg	8.5E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	3.0E-01	mg/kg-day	8.2E-05
			Exp. Route Total								3E-06					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.7E-03
				Cadmium	2E+00	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	8.9E-09	mg/kg-day	2.5E-05	mg/kg-day	3.6E-04
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									4E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	1.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-08	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.1E-07	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-09	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.6E-06
				Antimony	1E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.0E-08	mg/kg-day	4.0E-04	mg/kg-day	1.3E-04
				Arsenic	7E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.9E-07	3.7E-06	mg/kg-day	5.9E-04	mg/kg-day	6.3E-03
				Barium	2E+01	mg/kg	3.2E-07	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	1E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.1E-08	mg/kg-day	1.0E-03	mg/kg-day	5.1E-05
				Chromium III	2E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.5E+00	mg/kg-day	7.3E-06
				Copper	6E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	3.0E-02	mg/kg-day	1.1E-04
				Lead												
				Manganese	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	1E+00	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	1.0E-04	mg/kg-day	7.1E-04
				Nickel	1E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Thallium	8E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	8.0E-05	mg/kg-day	5.2E-04
				Vanadium	1E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Zinc	3E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-01	mg/kg-day	4.6E-05
			Exp. Route Total								1E-06					9E-03
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-07	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.5E-09	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	6.9E-06
				Arsenic	7E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-07	8.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Cadmium	1E+00	mg/kg	1.4E-09	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
			Exp. Route Total								6E-07					3E-03
		Exposure Point Total									2E-06					1E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	4.8E-08	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	2.6E-08	1.4E-07	mg/kg-day	1.0E-02	mg/kg-day	1.4E-05
				Trichloroethene	7E-01	mg/kg	1.2E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.9E-09	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04
				Benzo(a)anthracene	3E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.8E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	3.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	7.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.6E-09	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	9.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.9E-10	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	7.7E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.6E-09	2.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	8.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Aroclor 1260	3E-02	mg/kg	5.1E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.0E-09	1.5E-09	mg/kg-day	2.0E-05	mg/kg-day	7.4E-05
				Antimony	3E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.2E-02
				Arsenic	8E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-06	3.9E-06	mg/kg-day	5.9E-04	mg/kg-day	6.7E-03
				Barium	5E+01	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	7.0E-02	mg/kg-day	3.6E-05
				Cadmium	1E+00	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	1.0E-03	mg/kg-day	7.3E-05
				Chromium III	6E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	1.5E+00	mg/kg-day	2.2E-06
				Copper	3E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	5.0E-05
				Lead												
				Manganese	1E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	7.0E-02	mg/kg-day	8.5E-05
				Mercury	5E-01	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Nickel	1E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Vanadium	4E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03
				Zinc	1E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	3.0E-01	mg/kg-day	1.6E-05
			Exp. Route Total								1E-06					5E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	5.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	3.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.6E-08	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	8.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.8E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.1E-10	2.9E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	8.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	4.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-09	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.0E-02	mg/kg-day	1.3E-06
				Aroclor 1260	3E-02	mg/kg	5.7E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.1E-09	1.6E-09	mg/kg-day	2.0E-05	mg/kg-day	8.2E-05
				Arsenic	8E+01	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.8E-07	9.4E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	1E+00	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								5E-07					3E-03
		Exposure Point Total									2E-06					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	9.2E-10	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	3.7E-10	2.7E-09	mg/kg-day	3.0E-04	mg/kg-day	9.0E-06
				Benzo(a)anthracene	6E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.1E-09	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.7E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-07	5.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.9E-08	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	9.2E-10	3.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	5.6E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.1E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.4E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Aroclor 1260	6E-02	mg/kg	1.0E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-09	3.0E-09	mg/kg-day	2.0E-05	mg/kg-day	1.5E-04
				Antimony	3E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	4.0E-04	mg/kg-day	4.4E-03
				Arsenic	2E+03	mg/kg	3.3E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-05	9.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.6E-01
				Barium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.0E-02	mg/kg-day	6.7E-05
				Cadmium	1E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-03	mg/kg-day	5.5E-04
				Chromium III	1E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	1.5E+00	mg/kg-day	4.0E-05
				Copper	1E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Lead												
				Manganese	5E+02	mg/kg	8.9E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	7.0E-02	mg/kg-day	3.7E-04
				Mercury	3E+01	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Nickel	4E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Thallium	8E-01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	8.0E-05	mg/kg-day	4.9E-04
				Vanadium	1E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03
				Zinc	2E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.9E-04
				Chromium VI	2E+00	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	3.0E-03	mg/kg-day	2.6E-05
			Exp. Route Total								3E-05					2E-01
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	1.0E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.4E-09	3.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-07	5.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.0E-08	7.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	9.5E-10	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	5.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.2E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.8E-09	3.9E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Aroclor 1260	6E-02	mg/kg	1.1E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	2.3E-09	3.3E-09	mg/kg-day	2.0E-05	mg/kg-day	1.6E-04
				Arsenic	2E+03	mg/kg	8.0E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-05	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.8E-02
				Cadmium	1E+01	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	2.5E-05	mg/kg-day	1.7E-03
			Exp. Route Total								1E-05					8E-02
		Exposure Point Total									4E-05					3E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	7.3E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.9E-10	2.1E-09	mg/kg-day	3.0E-04	mg/kg-day	7.1E-06
				Benzo(a)anthracene	1E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	6.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-08	8.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	8.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.9E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	7.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	2.8E-09	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.0E-02	mg/kg-day	4.1E-07
				Aroclor 1260	1E-02	mg/kg	1.9E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	3.8E-10	5.6E-10	mg/kg-day	2.0E-05	mg/kg-day	2.8E-05
				Antimony	9E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	4.0E-04	mg/kg-day	1.2E-03
				Arsenic	3E+02	mg/kg	4.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.3E-05	mg/kg-day	5.9E-04	mg/kg-day	2.3E-02
				Barium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	7.0E-02	mg/kg-day	6.8E-05
				Cadmium	6E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	1.0E-03	mg/kg-day	3.2E-04
				Chromium III	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	1.5E+00	mg/kg-day	3.2E-05
				Copper	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Lead												
				Manganese	1E+03	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	7.0E-02	mg/kg-day	7.4E-04
				Mercury	3E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Nickel	3E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	8.8E-05
				Thallium	4E-01	mg/kg	7.6E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	8.0E-05	mg/kg-day	2.8E-04
				Vanadium	7E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	1.0E-03	mg/kg-day	3.3E-03
				Zinc	1E+03	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	3.0E-01	mg/kg-day	1.8E-04
			Exp. Route Total								4E-06					3E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	6.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-08	8.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.8E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	3.6E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.6E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	8.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.1E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	2.9E-09	mg/kg-day	N/A	N/A	N/A	8.4E-09	mg/kg-day	2.0E-02	mg/kg-day	4.2E-07
				Aroclor 1260	1E-02	mg/kg	2.1E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	4.3E-10	6.3E-10	mg/kg-day	2.0E-05	mg/kg-day	3.1E-05
				Arsenic	3E+02	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	6E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
			Exp. Route Total								2E-06					1E-02
		Exposure Point Total									5E-06					4E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.5E-03
				Arsenic	2E+02	mg/kg	1.6E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-05	4.6E-05	mg/kg-day	5.9E-04	mg/kg-day	7.8E-02
				Barium	1E+02	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	7.0E-02	mg/kg-day	4.1E-04
				Cadmium	1E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	2.2E-03
				Chromium III	7E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.5E+00	mg/kg-day	9.9E-05
				Copper	4E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.8E-03
				Lead												
				Manganese	1E+03	mg/kg	8.5E-05	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	7.0E-02	mg/kg-day	3.5E-03
				Mercury	1E+00	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Nickel	4E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	2.0E-02	mg/kg-day	3.7E-04
				Thallium	1E+00	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	8.0E-05	mg/kg-day	2.8E-03
				Vanadium	4E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	1.0E-03	mg/kg-day	9.1E-03
				Zinc	2E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
				Chromium VI	9E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	3.0E-03	mg/kg-day	6.4E-05
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	3.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.7E-02
				Cadmium	1E+01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	7.0E-03
			Exp. Route Total								6E-06					4E-02
		Exposure Point Total									2E-05					1E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	1.9E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.5E-05	5.5E-05	mg/kg-day	5.9E-04	mg/kg-day	9.3E-02
				Barium	3E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	7.0E-02	mg/kg-day	2.4E-05
				Cadmium	7E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	1.0E-03	mg/kg-day	3.6E-04
				Chromium III	5E+03	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.8E-04
				Copper	4E+03	mg/kg	6.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.4E-03
				Lead												
				Manganese	2E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-04	mg/kg-day	4.5E-02
				Nickel	8E+00	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Thallium	2E+00	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.6E-08	mg/kg-day	8.0E-05	mg/kg-day	9.5E-04
				Vanadium	2E+01	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	1.0E-03	mg/kg-day	1.1E-03
				Zinc	1E+03	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
				Chromium VI	7E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	1E+03	mg/kg	4.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	7E+00	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.2E-03
			Exp. Route Total								7E-06					5E-02
		Exposure Point Total									2E-05					2E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	4.0E-04	mg/kg-day	1.0E-03
				Arsenic	6E+01	mg/kg	4.0E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.1E-06	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.0E-02
				Barium	6E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.7E-04
				Cadmium	9E+00	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-03	mg/kg-day	1.9E-03
				Chromium III	3E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	6.8E-05	mg/kg-day	1.5E+00	mg/kg-day	4.5E-05
				Copper	7E+02	mg/kg	5.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.1E-03
				Lead												
				Manganese	7E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
				Mercury	3E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	6.0E-07	mg/kg-day	1.0E-04	mg/kg-day	6.0E-03
				Nickel	2E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	8.0E-05	mg/kg-day	6.5E-03
				Vanadium	8E+01	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	6E+02	mg/kg	4.5E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	3.0E-01	mg/kg-day	4.3E-04
			Exp. Route Total								3E-06					6E-02
			Dermal													
				Arsenic	6E+01	mg/kg	9.7E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-06	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	9.4E-03
				Cadmium	9E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	6.0E-03
			Exp. Route Total								1E-06					2E-02
		Exposure Point Total									5E-06					7E-02
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	4.0E-04	mg/kg-day	9.1E-04
				Arsenic	4E+01	mg/kg	2.9E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-06	8.4E-06	mg/kg-day	5.9E-04	mg/kg-day	1.4E-02
				Barium	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.0E-04
				Cadmium	4E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Chromium III	1E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.5E+00	mg/kg-day	1.9E-05
				Copper	1E+02	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	6.6E-04
				Lead												
				Manganese	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Mercury	3E-01	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.7E-08	mg/kg-day	1.0E-04	mg/kg-day	6.7E-04
				Nickel	1E+01	mg/kg	7.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Vanadium	3E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	1.0E-03	mg/kg-day	6.5E-03
				Zinc	3E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	3.0E-01	mg/kg-day	2.1E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	4E+01	mg/kg	6.9E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-06	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.7E-03
				Cadmium	4E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.2E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									3E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	6E+02	mg/kg	4.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-05	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01
				Barium	7E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	1E+01	mg/kg	9.1E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Chromium III	8E+02	mg/kg	5.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	1.5E+00	mg/kg-day	1.0E-04
				Copper	4E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-05	mg/kg-day	3.0E-02	mg/kg-day	2.6E-03
				Lead												
				Manganese	5E+02	mg/kg	3.2E-05	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	1.0E-04	mg/kg-day	5.0E-03
				Nickel	4E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	2.0E-02	mg/kg-day	3.8E-04
				Thallium	1E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	8.0E-05	mg/kg-day	2.5E-03
				Vanadium	6E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	2E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
			Exp. Route Total								3E-05					2E-01
			Dermal													
				Arsenic	6E+02	mg/kg	9.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	2.9E-05	mg/kg-day	3.0E-04	mg/kg-day	9.7E-02
				Cadmium	1E+01	mg/kg	7.3E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.5E-05	mg/kg-day	8.5E-03
			Exp. Route Total								1E-05					1E-01
		Exposure Point Total									5E-05					3E-01
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	2E+02	mg/kg	1.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.8E-06	3.7E-05	mg/kg-day	5.9E-04	mg/kg-day	6.3E-02
				Barium	8E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Cadmium	6E+00	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	3E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	1.5E+00	mg/kg-day	3.7E-05
				Copper	2E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	3.0E-02	mg/kg-day	1.7E-03
				Lead												
				Manganese	1E+03	mg/kg	9.6E-05	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	7.0E-02	mg/kg-day	4.0E-03
				Mercury	1E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-04	mg/kg-day	2.5E-03
				Nickel	8E+01	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	7.8E-04
				Thallium	5E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	8.0E-05	mg/kg-day	1.3E-02
				Vanadium	7E+01	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02
				Zinc	3E+03	mg/kg	2.1E-04	mg/kg-day	N/A	N/A	N/A	6.2E-04	mg/kg-day	3.0E-01	mg/kg-day	2.1E-03
			Exp. Route Total								1E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	3.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-06	8.9E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
				Cadmium	6E+00	mg/kg	3.2E-08	mg/kg-day	N/A	N/A	N/A	9.3E-08	mg/kg-day	2.5E-05	mg/kg-day	3.7E-03
			Exp. Route Total								5E-06					3E-02
		Exposure Point Total									1E-05					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	1E+02	mg/kg	9.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.5E-06	2.8E-05	mg/kg-day	5.9E-04	mg/kg-day	4.8E-02
				Barium	5E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Cadmium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Chromium III	5E+02	mg/kg	3.5E-05	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.5E+00	mg/kg-day	6.7E-05
				Copper	2E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.6E-03
				Lead												
				Manganese	9E+01	mg/kg	6.5E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	2.7E-04
				Mercury	3E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	6.9E-08	mg/kg-day	1.0E-04	mg/kg-day	6.9E-04
				Nickel	3E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.0E-02	mg/kg-day	2.8E-04
				Thallium	4E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	8.4E-07	mg/kg-day	8.0E-05	mg/kg-day	1.1E-02
				Vanadium	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	2E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.4E-03
				Chromium VI	6E-01	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	3.0E-03	mg/kg-day	4.4E-05
			Exp. Route Total								8E-06					8E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	6.8E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	2E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02
			Exp. Route Total								4E-06					3E-02
		Exposure Point Total									1E-05					1E-01
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-06	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	6E+01	mg/kg	9.8E-07	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.1E-05
				Cadmium	5E+00	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-03	mg/kg-day	2.5E-04
				Chromium III	7E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	1.5E+00	mg/kg-day	2.4E-05
				Copper	4E+02	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	3.0E-02	mg/kg-day	7.4E-04
				Lead												
				Manganese	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	7.0E-02	mg/kg-day	4.7E-04
				Mercury	1E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	1.0E-04	mg/kg-day	6.6E-04
				Nickel	2E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.6E-05
				Vanadium	9E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-03	mg/kg-day	4.7E-03
				Zinc	6E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	3.0E-01	mg/kg-day	1.0E-04
			Exp. Route Total								3E-06					3E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.6E-03
				Cadmium	5E+00	mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	7.9E-04
			Exp. Route Total								1E-06					9E-03
		Exposure Point Total									4E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	5.8E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.2E-09	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.3E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.3E-08	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	9.9E-09	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.2E-09	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.8E-10	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.1E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.3E-09	9.2E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.0E-02	mg/kg-day	9.9E-07
				Antimony	6E+00	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	4.0E-04	mg/kg-day	2.2E-03
				Arsenic	2E+02	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	9.5E-06	3.6E-05	mg/kg-day	5.9E-04	mg/kg-day	6.1E-02
				Barium	6E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	9.5E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Cadmium	6E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	1.0E-03	mg/kg-day	8.5E-04
				Chromium III	2E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.2E-04
				Copper	4E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Lead												
				Manganese	8E+02	mg/kg	4.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Mercury	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-04	mg/kg-day	5.2E-03
				Nickel	2E+01	mg/kg	8.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Vanadium	3E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-03	mg/kg-day	4.7E-03
				Zinc	9E+02	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.7E-04
				Chromium VI	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	3.0E-03	mg/kg-day	1.5E-04
			Exp. Route Total								1E-05					8E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.4E-09	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.6E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.5E-08	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.0E-08	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.4E-09	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.9E-10	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.4E-09	9.5E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.0E-06
				Arsenic	2E+02	mg/kg	3.0E-06	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.4E-06	8.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.9E-02
				Cadmium	6E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03
			Exp. Route Total								5E-06					3E-02
		Exposure Point Total									1E-05					1E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-08	7.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-07	7.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.1E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.6E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.1E-08	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.6E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.9E-04
				Arsenic	3E+01	mg/kg	1.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.4E-06	5.3E-06	mg/kg-day	5.9E-04	mg/kg-day	9.0E-03
				Barium	3E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.1E-06	mg/kg-day	7.0E-02	mg/kg-day	7.2E-05
				Cadmium	7E-01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-03	mg/kg-day	1.0E-04
				Chromium III	6E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	1.5E+00	mg/kg-day	6.0E-06
				Copper	6E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	3.0E-02	mg/kg-day	3.2E-04
				Lead												
				Manganese	3E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	5.8E-03
				Mercury	4E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	1.0E-04	mg/kg-day	5.9E-04
				Nickel	1E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.4E-05
				Thallium	1E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	8.0E-05	mg/kg-day	2.5E-03
				Vanadium	1E+01	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03
				Zinc	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.2E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-07	8.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.2E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.8E-09	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-08	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	2.0E-02	mg/kg-day	1.5E-05
				Arsenic	3E+01	mg/kg	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.6E-07	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.2E-03
				Cadmium	7E-01	mg/kg	2.8E-09	mg/kg-day	N/A	N/A	N/A	8.3E-09	mg/kg-day	2.5E-05	mg/kg-day	3.3E-04
			Exp. Route Total								1E-06					5E-03
		Exposure Point Total									3E-06					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	4.0E-04	mg/kg-day	2.5E-04
				Arsenic	1E+02	mg/kg	2.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-06	6.2E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	6E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Cadmium	4E+00	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	1.0E-03	mg/kg-day	2.0E-04
				Chromium III	3E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.5E+00	mg/kg-day	1.1E-05
				Copper	2E+02	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.3E-04
				Lead												
				Manganese	1E+03	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	7.0E-02	mg/kg-day	8.3E-04
				Mercury	2E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-08	mg/kg-day	1.0E-04	mg/kg-day	9.7E-04
				Nickel	2E+01	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	4.6E-05
				Thallium	4E-01	mg/kg	7.7E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	8.0E-05	mg/kg-day	2.8E-04
				Vanadium	3E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-03	mg/kg-day	1.4E-03
				Zinc	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.8E-05	mg/kg-day	3.0E-01	mg/kg-day	1.6E-04
			Exp. Route Total								2E-06					1E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.6E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	4E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.3E-04
			Exp. Route Total								8E-07					6E-03
		Exposure Point Total									2E-06					2E-02
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	2.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.1E-06	7.9E-06	mg/kg-day	5.9E-04	mg/kg-day	1.3E-02
				Barium	4E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	7.0E-02	mg/kg-day	8.9E-05
				Cadmium	1E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	9E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.9E-06
				Copper	1E+02	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.7E-04
				Lead												
				Manganese	4E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.9E-04
				Mercury	9E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	1.4E-03
				Nickel	9E+00	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	6.9E-05
				Vanadium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	3E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	3.0E-01	mg/kg-day	1.8E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	5E+01	mg/kg	6.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.7E-07	1.9E-06	mg/kg-day	3.0E-04	mg/kg-day	6.3E-03
				Cadmium	1E+00	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.0E-04
			Exp. Route Total								1E-06					7E-03
		Exposure Point Total									3E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	7E-01	mg/kg	3.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-08	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	4.9E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-07	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	9.9E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.3E-08	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	7.6E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	8.4E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.1E-08	2.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	3.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-08	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	2E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.1E-04
				Arsenic	3E+01	mg/kg	1.5E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.2E-06	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	2E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-06	mg/kg-day	7.0E-02	mg/kg-day	4.6E-05
				Chromium III	1E+02	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	1E+02	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	6.8E-04
				Lead												
				Manganese	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.0E-04
				Mercury	1E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Nickel	2E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.5E-04
				Thallium	2E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.2E-03
				Vanadium	2E+01	mg/kg	9.2E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Zinc	5E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	3.0E-01	mg/kg-day	2.7E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	7E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	5.1E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-07	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.5E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	7.9E-09	3.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	8.7E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.3E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.7E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-08	mg/kg-day	2.0E-02	mg/kg-day	4.8E-06
				Arsenic	3E+01	mg/kg	3.6E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
			Exp. Route Total								1E-06					4E-03
		Exposure Point Total									3E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	1.2E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	4.6E-10	3.4E-09	mg/kg-day	3.0E-04	mg/kg-day	1.1E-05
				Benzo(a)anthracene	6E+00	mg/kg	2.9E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.1E-07	8.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	2.9E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.1E-06	8.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.6E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	4.8E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.5E-08	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.7E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.1E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.5E-07	5.9E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Aroclor 1260	7E-02	mg/kg	3.5E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.9E-09	1.0E-08	mg/kg-day	2.0E-05	mg/kg-day	5.1E-04
				Antimony	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	8.9E-04
				Arsenic	8E+01	mg/kg	4.2E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.2E-06	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.1E-02
				Barium	8E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Cadmium	5E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Chromium III	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.5E+00	mg/kg-day	2.5E-05
				Copper	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.2E-03
				Lead												
				Manganese	4E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	7.0E-02	mg/kg-day	9.1E-04
				Mercury	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.2E-07	mg/kg-day	1.0E-04	mg/kg-day	4.2E-03
				Nickel	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	8.0E-05	mg/kg-day	4.2E-03
				Vanadium	5E+01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	1.0E-03	mg/kg-day	7.9E-03
				Zinc	1E+03	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-01	mg/kg-day	6.8E-04
			Exp. Route Total								7E-06					4E-02
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	3.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-07	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	3.0E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.2E-06	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.2E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	5.0E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.6E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.9E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.3E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.1E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.5E-07	6.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.4E-05
				Aroclor 1260	7E-02	mg/kg	3.9E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	7.8E-09	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.7E-04
				Arsenic	8E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-06	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.7E-03
				Cadmium	5E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.2E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								5E-06					1E-02
		Exposure Point Total									1E-05					6E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	4.0E-04	mg/kg-day	7.4E-04
				Arsenic	1E+02	mg/kg	7.8E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.0E-06	2.3E-05	mg/kg-day	5.9E-04	mg/kg-day	3.9E-02
				Barium	4E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	7.0E-02	mg/kg-day	8.9E-05
				Cadmium	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	4.4E-04
				Chromium III	9E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.9E-06
				Copper	5E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.5E-03
				Lead												
				Manganese	2E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	7.0E-02	mg/kg-day	4.6E-04
				Mercury	8E-01	mg/kg	4.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-04	mg/kg-day	1.2E-03
				Nickel	1E+01	mg/kg	7.6E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	2E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	8.0E-05	mg/kg-day	3.8E-03
				Vanadium	2E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	2E+03	mg/kg	8.9E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04
			Exp. Route Total								6E-06					5E-02
			Dermal													
				Arsenic	1E+02	mg/kg	1.9E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.8E-06	5.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02
				Cadmium	3E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	3.5E-08	mg/kg-day	2.5E-05	mg/kg-day	1.4E-03
			Exp. Route Total								3E-06					2E-02
		Exposure Point Total									9E-06					7E-02
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.7E-04
				Arsenic	1E+02	mg/kg	2.1E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.6E-06	6.2E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	1E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.9E-05
				Cadmium	1E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Chromium III	9E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	1.5E+00	mg/kg-day	3.1E-05
				Copper	6E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-02	mg/kg-day	9.8E-04
				Lead												
				Manganese	4E+02	mg/kg	6.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.8E-04
				Mercury	3E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03
				Nickel	4E+01	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Thallium	1E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	8.0E-05	mg/kg-day	7.6E-04
				Vanadium	7E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	1.0E-03	mg/kg-day	3.7E-03
				Zinc	2E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.9E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.6E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	1E+01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								8E-07					7E-03
		Exposure Point Total									2E-06					3E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.8E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	1.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.6E-07	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	9.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.3E-09	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	6.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-08	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.7E-05
				Antimony	2E+00	mg/kg	9.4E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	4.0E-04	mg/kg-day	6.9E-04
				Arsenic	2E+01	mg/kg	1.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-06	3.8E-06	mg/kg-day	5.9E-04	mg/kg-day	6.4E-03
				Barium	4E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	7.0E-02	mg/kg-day	9.4E-05
				Cadmium	2E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Chromium III	1E+02	mg/kg	7.8E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.5E+00	mg/kg-day	1.5E-05
				Copper	8E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	4.1E-04
				Lead												
				Manganese	1E+03	mg/kg	5.0E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Mercury	1E+00	mg/kg	6.3E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	1.0E-04	mg/kg-day	1.8E-03
				Nickel	1E+01	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.2E-05
				Thallium	1E+00	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	8.0E-05	mg/kg-day	1.9E-03
				Vanadium	2E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	1.0E-03	mg/kg-day	3.0E-03
				Zinc	6E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	3.0E-01	mg/kg-day	2.9E-04
			Exp. Route Total								2E-06					2E-02
			Dermal													
				Benzo(a)anthracene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.9E-07	4.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	4.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.5E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	2.0E-02	mg/kg-day	1.7E-05
				Arsenic	2E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-07	9.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Cadmium	2E+00	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	2.5E-05	mg/kg-day	7.8E-04
			Exp. Route Total								2E-06					4E-03
		Exposure Point Total									4E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.8E-07	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.3E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	3.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.4E-09	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	5.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-08	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	7.6E-06
				Aroclor 1260	1E-01	mg/kg	5.8E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.7E-08	mg/kg-day	2.0E-05	mg/kg-day	8.4E-04
				Antimony	2E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	4.0E-04	mg/kg-day	6.5E-04
				Arsenic	9E+01	mg/kg	4.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.3E-05	mg/kg-day	5.9E-04	mg/kg-day	2.2E-02
				Barium	8E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.8E-04
				Cadmium	5E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	1.0E-03	mg/kg-day	7.9E-04
				Chromium III	2E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	1.5E+00	mg/kg-day	2.0E-05
				Copper	2E+02	mg/kg	8.9E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-02	mg/kg-day	8.7E-04
				Lead												
				Manganese	5E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	7E-01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	2.0E-02	mg/kg-day	2.0E-04
				Vanadium	5E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-03	mg/kg-day	7.5E-03
				Zinc	1E+03	mg/kg	7.4E-05	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.2E-04
			Exp. Route Total								4E-06					4E-02
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	7.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.2E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-07	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-08	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	3.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.4E-08	1.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	3.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.5E-08	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	7.9E-06
				Aroclor 1260	1E-01	mg/kg	6.4E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.3E-08	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	9.4E-04
				Arsenic	9E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	5E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	6.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.5E-03
			Exp. Route Total								2E-06					1E-02
		Exposure Point Total									6E-06					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	3E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.6E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.0E-08	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.0E-10	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-09	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	2.0E-02	mg/kg-day	3.5E-06
				Antimony	9E-01	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	4.0E-04	mg/kg-day	3.4E-04
				Arsenic	6E+00	mg/kg	3.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.5E-07	9.4E-07	mg/kg-day	5.9E-04	mg/kg-day	1.6E-03
				Barium	1E+01	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	7.0E-02	mg/kg-day	2.7E-05
				Cadmium	2E-01	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	1.0E-03	mg/kg-day	2.5E-05
				Chromium III	1E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.5E+00	mg/kg-day	1.0E-06
				Copper	2E+01	mg/kg	8.7E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	3.0E-02	mg/kg-day	8.4E-05
				Lead												
				Manganese	1E+02	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Nickel	7E+00	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.5E-05
				Thallium	5E-01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	7.9E-08	mg/kg-day	8.0E-05	mg/kg-day	9.9E-04
				Vanadium	1E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	1.0E-03	mg/kg-day	1.8E-03
				Zinc	2E+02	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	3.0E-01	mg/kg-day	7.8E-05
			Exp. Route Total								4E-07					5E-03
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.9E-09	4.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.3E-08	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	9.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.7E-09	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.3E-10	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.0E-02	mg/kg-day	3.7E-06
				Arsenic	6E+00	mg/kg	7.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.5E-04
				Cadmium	2E-01	mg/kg	6.9E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.1E-05
			Exp. Route Total								2E-07					8E-04
		Exposure Point Total									6E-07					6E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	3.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.2E-06	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	3.4E-02
				Cadmium	2E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	1.1E-04
				Chromium VI	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.7E-06	mg/kg-day	3.0E-03	mg/kg-day	2.9E-03
				Copper	2E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.7E-06	mg/kg-day	3.0E-02	mg/kg-day	2.9E-04
				Manganese	8E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	7.0E-02	mg/kg-day	6.0E-04
				Mercury	2E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
				Vanadium	3E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Zinc	5E+02	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-01	mg/kg-day	8.9E-05
			Exp. Route Total								5E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-06	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.1E-03
				Cadmium	2E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	8.7E-09	mg/kg-day	2.5E-05	mg/kg-day	3.5E-04
			Exp. Route Total								1E-06					8E-03
		Exposure Point Total									7E-06					5E-02
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	7.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-06	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Cadmium	4E-01	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	7.5E-08	mg/kg-day	1.0E-03	mg/kg-day	7.5E-05
				Chromium VI	2E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	3.0E-03	mg/kg-day	1.2E-03
				Copper	3E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	3.0E-02	mg/kg-day	2.3E-04
				Manganese	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	7.0E-02	mg/kg-day	5.5E-04
				Mercury	1E-01	mg/kg	8.2E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Thallium	1E+00	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	8.0E-05	mg/kg-day	3.0E-03
				Vanadium	2E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	7E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-01	mg/kg-day	4.9E-05
			Exp. Route Total								1E-06					2E-02
			Dermal													
				Arsenic	1E+01	mg/kg	1.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-07	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Cadmium	4E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	6.0E-09	mg/kg-day	2.5E-05	mg/kg-day	2.4E-04
			Exp. Route Total								3E-07					2E-03
		Exposure Point Total									1E-06					2E-02

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	4.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.3E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.1E-02
				Cadmium	7E-01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-03	mg/kg-day	1.4E-04
				Chromium VI	1E+02	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03
				Copper	5E+01	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.4E-04
				Manganese	2E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	4.6E-05	mg/kg-day	7.0E-02	mg/kg-day	6.6E-04
				Mercury	3E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	1.0E-04	mg/kg-day	5.9E-04
				Thallium	2E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	8.0E-05	mg/kg-day	4.2E-03
				Vanadium	3E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	5.3E-03
				Zinc	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	3.0E-01	mg/kg-day	1.1E-04
			Exp. Route Total								6E-06					6E-02
			Dermal													
				Arsenic	6E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-06	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.7E-03
				Cadmium	7E-01	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	2.5E-05	mg/kg-day	4.4E-04
			Exp. Route Total								1E-06					1E-02
		Exposure Point Total									8E-06					7E-02
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	1.0E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	3.0E-05	mg/kg-day	3.0E-04	mg/kg-day	9.9E-02
				Cadmium	5E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	7.0E-04
				Chromium VI	4E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-03	mg/kg-day	2.0E-02
				Copper	2E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Manganese	3E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	4.4E-04	mg/kg-day	7.0E-02	mg/kg-day	6.2E-03
				Mercury	3E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-04	mg/kg-day	5.2E-03
				Thallium	3E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	8.0E-05	mg/kg-day	6.4E-03
				Vanadium	4E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	1.0E-03	mg/kg-day	5.8E-03
				Zinc	6E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	9.0E-05	mg/kg-day	3.0E-01	mg/kg-day	3.0E-04
			Exp. Route Total								2E-05					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-06	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02
				Cadmium	5E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								4E-06					3E-02
		Exposure Point Total									2E-05					2E-01

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	2.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-06	7.0E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	1E+00	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-03	mg/kg-day	2.2E-04
				Chromium VI	1E+02	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	3.0E-03	mg/kg-day	6.1E-03
				Copper	1E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.5E-04
				Manganese	8E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03
				Mercury	7E-01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Vanadium	3E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	1.0E-03	mg/kg-day	4.4E-03
				Zinc	4E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
			Exp. Route Total								4E-06					4E-02
			Dermal													
				Arsenic	5E+01	mg/kg	5.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.6E-07	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.6E-03
				Cadmium	1E+00	mg/kg	5.9E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.5E-05	mg/kg-day	6.9E-04
			Exp. Route Total								9E-07					6E-03
		Exposure Point Total									4E-06					4E-02
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	6.8E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
				Cadmium	2E-01	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	1.0E-03	mg/kg-day	2.9E-05
				Chromium VI	1E+02	mg/kg	7.3E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	3.0E-03	mg/kg-day	7.1E-03
				Copper	1E+02	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.1E-04
				Manganese	3E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	7.0E-02	mg/kg-day	7.2E-04
				Mercury	1E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-04	mg/kg-day	1.5E-03
				Thallium	2E+00	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	8.0E-05	mg/kg-day	3.6E-03
				Vanadium	3E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	2E+04	mg/kg	9.9E-04	mg/kg-day	N/A	N/A	N/A	2.9E-03	mg/kg-day	3.0E-01	mg/kg-day	9.7E-03
			Exp. Route Total								3E-06					5E-02
			Dermal													
				Arsenic	4E+01	mg/kg	5.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-07	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	5.4E-03
				Cadmium	2E-01	mg/kg	7.9E-10	mg/kg-day	N/A	N/A	N/A	2.3E-09	mg/kg-day	2.5E-05	mg/kg-day	9.2E-05
			Exp. Route Total								8E-07					6E-03
		Exposure Point Total									4E-06					6E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	2.1E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	5.1E-08	6.2E-07	mg/kg-day	2.0E-03	mg/kg-day	3.1E-04
				4,4'-DDE	2E-02	mg/kg	5.1E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.7E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				4,4'-DDT	3E-03	mg/kg	9.0E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.0E-08	2.6E-07	mg/kg-day	5.0E-04	mg/kg-day	5.2E-04
				Aldrin	3E-04	mg/kg	1.0E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.7E-07	3.0E-08	mg/kg-day	3.0E-05	mg/kg-day	9.9E-04
				alpha-Chlordane	6E-03	mg/kg	1.8E-07	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	6.4E-08	5.4E-07	mg/kg-day	5.0E-04	mg/kg-day	1.1E-03
				Aroclor-1254	2E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-06	2.0E-06	mg/kg-day	2.0E-05	mg/kg-day	1.0E-01
				Aroclor-1260	6E-02	mg/kg	2.0E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	4.0E-06	5.8E-06	mg/kg-day	2.0E-05	mg/kg-day	2.9E-01
				delta-BHC	6E-04	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	3.0E-04	mg/kg-day	1.8E-04
				Dieldrin	2E-03	mg/kg	7.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.1E-06	2.1E-07	mg/kg-day	5.0E-05	mg/kg-day	4.1E-03
				Heptachlor epoxide	8E-04	mg/kg	2.7E-08	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.5E-07	7.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.0E-03
				Antimony	9E-02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	4.0E-04	mg/kg-day	2.2E-02
				Lead												
				Mercury	4E-01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-04	mg/kg-day	3.4E-01
				Selenium	6E-01	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	5.0E-03	mg/kg-day	1.1E-02
			Exp. Route Total								7E-06					8E-01
		Exposure Point Total									7E-06					8E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	5.0E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.5E-06	mg/kg-day	2.0E-03	mg/kg-day	7.3E-04
				4,4'-DDE	9E-02	mg/kg	2.7E-06	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	9.3E-07	8.0E-06	mg/kg-day	3.0E-04	mg/kg-day	2.7E-02
				4,4'-DDT	8E-03	mg/kg	2.6E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	8.7E-08	7.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.5E-03
				Aldrin	5E-04	mg/kg	1.7E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	2.9E-07	4.9E-08	mg/kg-day	3.0E-05	mg/kg-day	1.6E-03
				alpha-Chlordane	3E-03	mg/kg	8.1E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.8E-08	2.4E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04
				Aroclor-1254	9E-02	mg/kg	2.7E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.4E-06	7.9E-06	mg/kg-day	2.0E-05	mg/kg-day	4.0E-01
				Aroclor-1260	2E-01	mg/kg	6.0E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.2E-05	1.7E-05	mg/kg-day	2.0E-05	mg/kg-day	8.7E-01
				Dieldrin	2E-03	mg/kg	4.8E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	7.6E-07	1.4E-07	mg/kg-day	5.0E-05	mg/kg-day	2.8E-03
				Antimony	8E-02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	4.0E-04	mg/kg-day	1.8E-02
				Lead												
				Mercury	3E-01	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01
				Selenium	7E-01	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	6.3E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02
			Exp. Route Total								2E-05					2E+00
		Exposure Point Total									2E-05					2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	6.4E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.5E-07	1.9E-06	mg/kg-day	2.0E-03	mg/kg-day	9.3E-04
				4,4'-DDE	6E-02	mg/kg	1.9E-06	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	6.3E-07	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02
				4,4'-DDT	5E-03	mg/kg	1.5E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	5.1E-08	4.4E-07	mg/kg-day	5.0E-04	mg/kg-day	8.7E-04
				Aldrin	5E-04	mg/kg	1.7E-08	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	2.9E-07	4.9E-08	mg/kg-day	3.0E-05	mg/kg-day	1.6E-03
				alpha-Chlordane	8E-03	mg/kg	2.7E-07	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	9.3E-08	7.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.6E-03
				Aroclor-1248	8E-03	mg/kg	2.5E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.0E-07	7.3E-07	mg/kg-day	2.0E-05	mg/kg-day	3.7E-02
				Aroclor-1254	1E-01	mg/kg	4.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	8.1E-06	1.2E-05	mg/kg-day	2.0E-05	mg/kg-day	5.9E-01
				Aroclor-1260	8E-02	mg/kg	2.5E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.0E-06	7.3E-06	mg/kg-day	2.0E-05	mg/kg-day	3.6E-01
				Dieldrin	2E-03	mg/kg	7.3E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.2E-06	2.1E-07	mg/kg-day	5.0E-05	mg/kg-day	4.3E-03
				Heptachlor epoxide	5E-04	mg/kg	1.7E-08	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.5E-07	4.9E-08	mg/kg-day	1.3E-05	mg/kg-day	3.8E-03
				Arsenic	2E-01	mg/kg	5.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.5E-06	1.5E-05	mg/kg-day	3.0E-04	mg/kg-day	4.9E-02
				Lead												
				Mercury	2E-01	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-04	mg/kg-day	1.9E-01
				Selenium	6E-01	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02
			Exp. Route Total								2E-05					1E+00
		Exposure Point Total									2E-05					1E+00
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.3E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.9E-10	5.3E-10	mg/kg-day	1.3E-05	mg/kg-day	4.1E-05
				Arsenic	5E+01	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	4E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	1.2E-09	mg/kg-day	2.5E-05	mg/kg-day	5.0E-05
				Chromium VI	6E+01	ug/L	3.4E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
				Mercury	6E-01	ug/L	1.8E-10	mg/kg-day	N/A	N/A	N/A	1.8E-09	mg/kg-day	2.1E-05	mg/kg-day	8.4E-05
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.6E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.5E-09	1.6E-09	mg/kg-day	1.3E-05	mg/kg-day	1.2E-04
				Arsenic	5E+01	ug/L	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-08	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Cadmium	4E-01	ug/L	3.7E-10	mg/kg-day	N/A	N/A	N/A	3.7E-09	mg/kg-day	2.5E-05	mg/kg-day	1.5E-04
				Chromium VI	6E+01	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.5E-05	mg/kg-day	1.4E-02
				Lead												
				Manganese	6E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03
				Mercury	6E-01	ug/L	5.3E-10	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	2.1E-05	mg/kg-day	2.5E-04
			Exp. Route Total								6E-08					2E-02
		Exposure Point Total									6E-08					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	6.3E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Cadmium	2E-01	ug/L	2.0E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium VI	8E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	ug/L	6.2E-07	mg/kg-day	N/A	N/A	N/A	6.2E-06	mg/kg-day	2.8E-03	mg/kg-day	2.2E-03
				Mercury	1E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.1E-05
			Exp. Route Total								5E-08					7E-03
		Exposure Point Total									5E-08					7E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station AM	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	2.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	8.4E-09	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Cadmium	2E-01	ug/L	6.7E-11	mg/kg-day	N/A	N/A	N/A	6.7E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
				Chromium VI	8E+00	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.3E-04
				Lead												
				Manganese	7E+02	ug/L	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.4E-04
				Mercury	1E-01	ug/L	3.6E-11	mg/kg-day	N/A	N/A	N/A	3.6E-10	mg/kg-day	2.1E-05	mg/kg-day	1.7E-05
			Exp. Route Total								2E-08					2E-03
		Exposure Point Total									2E-08					2E-03
		Station KF	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.6E-05
				Chromium VI	2E+00	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	7.5E-05	mg/kg-day	1.7E-04
				Manganese	4E+02	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.8E-03	mg/kg-day	3.7E-04
			Exp. Route Total								3E-09					6E-04
		Exposure Point Total									3E-09					6E-04
		Station 08	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.6E-05
				Chromium VI	2E+00	ug/L	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	7.5E-05	mg/kg-day	1.7E-04
				Manganese	4E+02	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.8E-03	mg/kg-day	3.7E-04
			Exp. Route Total								3E-09					6E-04
		Exposure Point Total									3E-09					6E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station LP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station AS	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	7.5E-05	mg/kg-day	2.4E-04
				Lead												
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.1E-04
				Mercury	2E-01	ug/L	6.4E-11	mg/kg-day	N/A	N/A	N/A	6.4E-10	mg/kg-day	2.1E-05	mg/kg-day	3.0E-05
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station 06	Dermal													
		(Reach 4)		Chromium VI	4E+00	ug/L	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	7.5E-05	mg/kg-day	3.3E-04
				Lead												
				Manganese	5E+02	ug/L	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.8E-03	mg/kg-day	5.2E-04
			Exp. Route Total								N/A					9E-04
		Exposure Point Total									N/A					9E-04
		Station 05	Dermal													
		(Reach 5)		Chloroform	1E+00	ug/L	5.4E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	1.0E-02	mg/kg-day	5.4E-06
				Tetrachloroethene	2E+00	ug/L	7.1E-08	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-08	7.1E-07	mg/kg-day	1.0E-02	mg/kg-day	7.1E-05
				Chromium VI	9E-01	ug/L	4.9E-10	mg/kg-day	N/A	N/A	N/A	4.9E-09	mg/kg-day	7.5E-05	mg/kg-day	6.6E-05
				Manganese	3E+02	ug/L	9.3E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	2.8E-03	mg/kg-day	3.3E-04
			Exp. Route Total								4E-08					5E-04
		Exposure Point Total									4E-08					5E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04
		Station 03	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04
		Station 02	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	1.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-09	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.6E-05
				Chromium VI	2E+00	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-04
				Lead												
				Manganese	2E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.8E-03	mg/kg-day	2.2E-04
				Mercury	7E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	2.1E-05	mg/kg-day	9.5E-06
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	1.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-09	1.5E-08	mg/kg-day	3.0E-04	mg/kg-day	5.1E-05
				Chromium VI	2E+00	ug/L	7.3E-10	mg/kg-day	N/A	N/A	N/A	7.3E-09	mg/kg-day	3.0E-03	mg/kg-day	2.4E-06
				Lead												
				Manganese	7E+01	ug/L	3.5E-08	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	7.0E-02	mg/kg-day	5.0E-06
				Mercury	4E-02	ug/L	2.0E-11	mg/kg-day	N/A	N/A	N/A	2.0E-10	mg/kg-day	3.0E-04	mg/kg-day	6.5E-07
			Exp. Route Total								2E-09					6E-05
			Dermal													
				Arsenic	3E+00	ug/L	5.5E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.2E-10	5.5E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05
				Chromium VI	2E+00	ug/L	5.3E-10	mg/kg-day	N/A	N/A	N/A	5.3E-09	mg/kg-day	7.5E-05	mg/kg-day	7.0E-05
				Lead												
				Manganese	7E+01	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	2.8E-03	mg/kg-day	4.5E-05
				Mercury	4E-02	ug/L	7.0E-12	mg/kg-day	N/A	N/A	N/A	7.0E-11	mg/kg-day	2.1E-05	mg/kg-day	3.4E-06
			Exp. Route Total								8E-10					1E-04
		Exposure Point Total									3E-09					2E-04
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	5.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.2E-07	5.5E-06	mg/kg-day	5.9E-04	mg/kg-day	9.2E-03
				Barium	6E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	7.0E-02	mg/kg-day	2.0E-05
				Cadmium	2E+00	mg/kg	5.6E-09	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	1.0E-03	mg/kg-day	5.6E-05
				Chromium III	3E+02	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	6.4E-06	mg/kg-day	1.5E+00	mg/kg-day	4.3E-06
				Copper	3E+02	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	3.0E-02	mg/kg-day	2.6E-04
				Lead												
				Manganese	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	7.0E-02	mg/kg-day	9.0E-05
				Mercury	4E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Vanadium	3E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Zinc	5E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-01	mg/kg-day	4.1E-05
			Exp. Route Total								4E-07					1E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.9E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.7E-03
				Cadmium	2E+00	mg/kg	8.9E-10	mg/kg-day	N/A	N/A	N/A	8.9E-09	mg/kg-day	2.5E-05	mg/kg-day	3.6E-04
			Exp. Route Total								4E-07					9E-03
		Exposure Point Total									8E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	2.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-08	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-09	3.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	2.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.0E-10	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.9E-06
				Antimony	9E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	4.0E-04	mg/kg-day	5.8E-05
				Arsenic	6E+01	mg/kg	1.6E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.6E-06	mg/kg-day	5.9E-04	mg/kg-day	2.6E-03
				Barium	2E+01	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	4.0E-07	mg/kg-day	7.0E-02	mg/kg-day	5.8E-06
				Cadmium	6E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	1.0E-03	mg/kg-day	1.6E-05
				Chromium III	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.5E+00	mg/kg-day	1.8E-06
				Copper	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	4.8E-05
				Lead												
				Manganese	1E+02	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	7.0E-02	mg/kg-day	4.8E-05
				Mercury	6E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	1.0E-04	mg/kg-day	1.5E-04
				Nickel	7E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.3E-06
				Thallium	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	8.0E-05	mg/kg-day	1.6E-04
				Vanadium	1E+01	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	1.0E-03	mg/kg-day	2.9E-04
				Zinc	2E+02	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	3.0E-01	mg/kg-day	1.9E-05
			Exp. Route Total								1E-07					3E-03
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	5.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	4.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.4E-08	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	5.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.2E-10	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	7.9E-09	mg/kg-day	N/A	N/A	N/A	7.9E-08	mg/kg-day	2.0E-02	mg/kg-day	4.0E-06
				Arsenic	6E+01	mg/kg	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	7.5E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Cadmium	6E-01	mg/kg	2.6E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.0E-04
			Exp. Route Total								2E-07					3E-03
		Exposure Point Total									3E-07					6E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	7.0E-09	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	3.8E-09	7.0E-08	mg/kg-day	1.0E-02	mg/kg-day	7.0E-06
				Trichloroethene	7E-01	mg/kg	1.8E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.1E-10	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	5.9E-05
				Benzo(a)anthracene	3E-01	mg/kg	7.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.6E-10	7.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	5.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.7E-09	5.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.3E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.8E-11	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	1.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.2E-10	1.1E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	5.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.1E-10	5.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	2.0E-02	mg/kg-day	5.1E-07
				Aroclor 1260	3E-02	mg/kg	7.4E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.4E-11	7.4E-10	mg/kg-day	2.0E-05	mg/kg-day	3.7E-05
				Antimony	7E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	4.0E-04	mg/kg-day	4.4E-03
				Arsenic	8E+01	mg/kg	2.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.5E-07	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.3E-03
				Barium	5E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.8E-05
				Cadmium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	1.0E-03	mg/kg-day	3.6E-05
				Chromium III	6E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.5E+00	mg/kg-day	1.1E-06
				Copper	3E+01	mg/kg	7.5E-08	mg/kg-day	N/A	N/A	N/A	7.5E-07	mg/kg-day	3.0E-02	mg/kg-day	2.5E-05
				Lead												
				Manganese	1E+02	mg/kg	3.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Mercury	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	1.0E-04	mg/kg-day	1.2E-04
				Nickel	1E+01	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.0E-02	mg/kg-day	1.4E-05
				Vanadium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Zinc	1E+02	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	3.0E-01	mg/kg-day	8.1E-06
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.7E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.6E-10	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	2.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.5E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.1E-06
				Aroclor 1260	3E-02	mg/kg	1.6E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.6E-10	1.6E-09	mg/kg-day	2.0E-05	mg/kg-day	8.2E-05
				Arsenic	8E+01	mg/kg	9.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	9.4E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	1E+00	mg/kg	5.8E-10	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								2E-07					3E-03
		Exposure Point Total									3E-07					1E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	1.3E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.4E-11	1.3E-09	mg/kg-day	3.0E-04	mg/kg-day	4.5E-06
				Benzo(a)anthracene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.0E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	2.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	7.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	7.9E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.7E-10	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	2.0E-02	mg/kg-day	5.5E-07
				Aroclor 1260	4E-02	mg/kg	1.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.0E-10	1.0E-09	mg/kg-day	2.0E-05	mg/kg-day	5.2E-05
				Antimony	3E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	8.9E-07	mg/kg-day	4.0E-04	mg/kg-day	2.2E-03
				Arsenic	2E+03	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-06	4.9E-05	mg/kg-day	5.9E-04	mg/kg-day	8.2E-02
				Barium	9E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	7.0E-02	mg/kg-day	3.4E-05
				Cadmium	1E+01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	1.0E-03	mg/kg-day	2.7E-04
				Chromium III	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.5E+00	mg/kg-day	2.0E-05
				Copper	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	3.0E-02	mg/kg-day	1.0E-03
				Lead												
				Manganese	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Mercury	3E+01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-04	mg/kg-day	7.0E-03
				Nickel	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Thallium	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	8.0E-05	mg/kg-day	2.5E-04
				Vanadium	1E+02	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	1.0E-03	mg/kg-day	2.5E-03
				Zinc	2E+03	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	3.0E-01	mg/kg-day	2.0E-04
				Chromium VI	2E+00	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	3.0E-03	mg/kg-day	1.3E-05
			Exp. Route Total								4E-06					1E-01
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	5.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.9E-08	5.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	4.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.5E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	3.6E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.7E-10	3.6E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	2.0E-02	mg/kg-day	1.1E-06
				Aroclor 1260	4E-02	mg/kg	2.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.3E-10	2.3E-09	mg/kg-day	2.0E-05	mg/kg-day	1.2E-04
				Arsenic	2E+03	mg/kg	2.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-06	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.8E-02
				Cadmium	1E+01	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	2.5E-05	mg/kg-day	1.7E-03
			Exp. Route Total								4E-06					8E-02
		Exposure Point Total									7E-06					2E-01

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	1.1E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	4.3E-11	1.1E-09	mg/kg-day	3.0E-04	mg/kg-day	3.6E-06
				Benzo(a)anthracene	1E-01	mg/kg	3.3E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-10	3.3E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	4.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.0E-09	4.1E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	7.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.4E-10	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	5.1E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.7E-11	5.1E-09	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	1.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.5E-10	1.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	3.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.6E-10	3.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	4.1E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.0E-02	mg/kg-day	2.0E-07
				Aroclor 1260	1E-02	mg/kg	2.8E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-11	2.8E-10	mg/kg-day	2.0E-05	mg/kg-day	1.4E-05
				Antimony	9E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	4.0E-04	mg/kg-day	5.8E-04
				Arsenic	3E+02	mg/kg	6.7E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.1E-07	6.7E-06	mg/kg-day	5.9E-04	mg/kg-day	1.1E-02
				Barium	9E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	7.0E-02	mg/kg-day	3.4E-05
				Cadmium	6E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	1.5E+00	mg/kg-day	1.6E-05
				Copper	6E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	3.0E-02	mg/kg-day	5.3E-04
				Lead												
				Manganese	1E+03	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	7.0E-02	mg/kg-day	3.7E-04
				Mercury	3E+00	mg/kg	7.5E-09	mg/kg-day	N/A	N/A	N/A	7.5E-08	mg/kg-day	1.0E-04	mg/kg-day	7.5E-04
				Nickel	3E+01	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	8.8E-07	mg/kg-day	2.0E-02	mg/kg-day	4.4E-05
				Thallium	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.4E-04
				Vanadium	7E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Zinc	1E+03	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-01	mg/kg-day	9.2E-05
			Exp. Route Total								5E-07					2E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	6.9E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-10	6.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	8.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.2E-09	8.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.7E-11	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	2.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	7.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.4E-10	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	8.4E-10	mg/kg-day	N/A	N/A	N/A	8.4E-09	mg/kg-day	2.0E-02	mg/kg-day	4.2E-07
				Aroclor 1260	1E-02	mg/kg	6.3E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	6.3E-11	6.3E-10	mg/kg-day	2.0E-05	mg/kg-day	3.1E-05
				Arsenic	3E+02	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.8E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	6E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
			Exp. Route Total								5E-07					1E-02
		Exposure Point Total									1E-06					3E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	4.0E-04	mg/kg-day	9.4E-04
				Arsenic	2E+02	mg/kg	1.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.3E-06	1.7E-05	mg/kg-day	5.9E-04	mg/kg-day	2.9E-02
				Barium	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Cadmium	1E+01	mg/kg	8.2E-08	mg/kg-day	N/A	N/A	N/A	8.2E-07	mg/kg-day	1.0E-03	mg/kg-day	8.2E-04
				Chromium III	7E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	1.5E+00	mg/kg-day	3.7E-05
				Copper	4E+02	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Lead												
				Manganese	1E+03	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	1E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	8.4E-09	mg/kg-day	N/A	N/A	N/A	8.4E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	4E+01	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	1.0E-03	mg/kg-day	3.4E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.2E-04
				Chromium VI	9E-01	mg/kg	7.2E-09	mg/kg-day	N/A	N/A	N/A	7.2E-08	mg/kg-day	3.0E-03	mg/kg-day	2.4E-05
			Exp. Route Total								1E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	8.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-06	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02
				Cadmium	1E+01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								1E-06					3E-02
		Exposure Point Total									3E-06					7E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	2.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.1E-06	2.7E-05	mg/kg-day	5.9E-04	mg/kg-day	4.7E-02
				Barium	3E+01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	8.3E-07	mg/kg-day	7.0E-02	mg/kg-day	1.2E-05
				Cadmium	7E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	1.0E-03	mg/kg-day	1.8E-04
				Chromium III	5E+03	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.5E+00	mg/kg-day	9.0E-05
				Copper	4E+03	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	9.6E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Lead												
				Manganese	2E+02	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	7.0E-02	mg/kg-day	7.5E-05
				Mercury	9E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-04	mg/kg-day	2.3E-02
				Nickel	8E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	2.0E-02	mg/kg-day	1.0E-05
				Thallium	2E+00	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	8.0E-05	mg/kg-day	4.8E-04
				Vanadium	2E+01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	1.0E-03	mg/kg-day	5.3E-04
				Zinc	1E+03	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	3.0E-01	mg/kg-day	9.9E-05
				Chromium VI	7E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	3.0E-03	mg/kg-day	5.9E-05
			Exp. Route Total								2E-06					7E-02
			Dermal													
				Arsenic	1E+03	mg/kg	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	7E+00	mg/kg	2.9E-09	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-06					5E-02
		Exposure Point Total									4E-06					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	4.0E-04	mg/kg-day	3.9E-04
				Arsenic	6E+01	mg/kg	4.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-07	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	6E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	7.0E-02	mg/kg-day	6.4E-05
				Cadmium	9E+00	mg/kg	7.1E-08	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	1.0E-03	mg/kg-day	7.1E-04
				Chromium III	3E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.7E-05
				Copper	7E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	3.0E-02	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+02	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	7.0E-02	mg/kg-day	7.5E-04
				Mercury	3E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03
				Nickel	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	7.8E-05
				Thallium	3E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	8.0E-05	mg/kg-day	2.4E-03
				Vanadium	8E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	6.1E-06	mg/kg-day	1.0E-03	mg/kg-day	6.1E-03
				Zinc	6E+02	mg/kg	4.9E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	3.0E-01	mg/kg-day	1.6E-04
			Exp. Route Total								3E-07					2E-02
			Dermal													
				Arsenic	6E+01	mg/kg	2.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.2E-07	2.1E-06	mg/kg-day	3.0E-04	mg/kg-day	7.1E-03
				Cadmium	9E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									7E-07					3E-02
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	4.0E-04	mg/kg-day	3.4E-04
				Arsenic	4E+01	mg/kg	3.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.4E-07	3.2E-06	mg/kg-day	5.9E-04	mg/kg-day	5.4E-03
				Barium	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	4E+00	mg/kg	2.9E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	1.0E-03	mg/kg-day	2.9E-04
				Chromium III	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.5E+00	mg/kg-day	7.3E-06
				Copper	1E+02	mg/kg	7.4E-07	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	3.0E-02	mg/kg-day	2.5E-04
				Lead												
				Manganese	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.8E-05
				Mercury	3E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	1.0E-04	mg/kg-day	2.5E-04
				Nickel	1E+01	mg/kg	7.6E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	2.0E-02	mg/kg-day	3.8E-05
				Vanadium	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	1.0E-03	mg/kg-day	2.4E-03
				Zinc	3E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.0E-05
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Arsenic	4E+01	mg/kg	1.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.0E-03
				Cadmium	4E+00	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	4.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					7E-03
		Exposure Point Total									5E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	4.0E-04	mg/kg-day	2.9E-04
				Arsenic	6E+02	mg/kg	4.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	4.5E-05	mg/kg-day	5.9E-04	mg/kg-day	7.7E-02
				Barium	7E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	5.1E-06	mg/kg-day	7.0E-02	mg/kg-day	7.3E-05
				Cadmium	1E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Chromium III	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	1.5E+00	mg/kg-day	2.3E-05
				Copper	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-02	mg/kg-day	9.6E-04
				Lead												
				Manganese	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.1E-04
				Mercury	2E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	7.4E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	8.0E-05	mg/kg-day	9.2E-04
				Vanadium	6E+01	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-03	mg/kg-day	4.8E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.3E-04
			Exp. Route Total								3E-06					9E-02
			Dermal													
				Arsenic	6E+02	mg/kg	2.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-06	2.2E-05	mg/kg-day	3.0E-04	mg/kg-day	7.2E-02
				Cadmium	1E+01	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.5E-05	mg/kg-day	6.4E-03
			Exp. Route Total								3E-06					8E-02
		Exposure Point Total									7E-06					2E-01
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	9.1E-04
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	1.4E-05	mg/kg-day	5.9E-04	mg/kg-day	2.4E-02
				Barium	8E+01	mg/kg	5.8E-07	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	7.0E-02	mg/kg-day	8.4E-05
				Cadmium	6E+00	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	4.4E-04
				Chromium III	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.5E+00	mg/kg-day	1.4E-05
				Copper	2E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	3.0E-02	mg/kg-day	6.2E-04
				Lead												
				Manganese	1E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	7.0E-02	mg/kg-day	1.5E-03
				Mercury	1E+00	mg/kg	9.2E-09	mg/kg-day	N/A	N/A	N/A	9.2E-08	mg/kg-day	1.0E-04	mg/kg-day	9.2E-04
				Nickel	8E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	2.0E-02	mg/kg-day	2.9E-04
				Thallium	1E+00	mg/kg	8.6E-09	mg/kg-day	N/A	N/A	N/A	8.6E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	7E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	1.0E-03	mg/kg-day	5.2E-03
				Zinc	3E+03	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	3.0E-01	mg/kg-day	7.8E-04
			Exp. Route Total								1E-06					4E-02
			Dermal													
				Arsenic	2E+02	mg/kg	6.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-06	6.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.2E-02
				Cadmium	6E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	7.0E-08	mg/kg-day	2.5E-05	mg/kg-day	2.8E-03
			Exp. Route Total								1E-06					2E-02
		Exposure Point Total									2E-06					6E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	4.0E-04	mg/kg-day	9.0E-04
				Arsenic	1E+02	mg/kg	1.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.2E-07	1.1E-05	mg/kg-day	5.9E-04	mg/kg-day	1.8E-02
				Barium	5E+01	mg/kg	3.9E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	7.0E-02	mg/kg-day	5.6E-05
				Cadmium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium III	5E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.5E+00	mg/kg-day	2.5E-05
				Copper	2E+02	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	3.0E-02	mg/kg-day	6.0E-04
				Lead												
				Manganese	9E+01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	7.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.0E-04
				Mercury	3E-01	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	1.0E-04	mg/kg-day	2.6E-04
				Nickel	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	4E+00	mg/kg	3.2E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	8.0E-05	mg/kg-day	3.9E-03
				Vanadium	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	5.5E-03
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-01	mg/kg-day	5.3E-04
				Chromium VI	6E-01	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	3.0E-03	mg/kg-day	1.6E-05
			Exp. Route Total								8E-07					3E-02
			Dermal													
				Arsenic	1E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.7E-07	5.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	2E+01	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.5E-05	mg/kg-day	8.4E-03
			Exp. Route Total								8E-07					3E-02
		Exposure Point Total									2E-06					6E-02
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	5.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.1E-07	5.4E-06	mg/kg-day	5.9E-04	mg/kg-day	9.1E-03
				Barium	6E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	7.0E-02	mg/kg-day	2.0E-05
				Cadmium	5E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-03	mg/kg-day	1.2E-04
				Chromium III	7E+02	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	2E+02	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	3.0E-02	mg/kg-day	1.4E-04
				Lead												
				Manganese	3E+02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	8.5E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Mercury	1E+00	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	1.0E-04	mg/kg-day	3.3E-04
				Nickel	2E+01	mg/kg	5.6E-08	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.8E-05
				Vanadium	9E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Zinc	6E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	3.0E-01	mg/kg-day	5.2E-05
			Exp. Route Total								4E-07					1E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.9E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.6E-03
				Cadmium	5E+00	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	7.9E-04
			Exp. Route Total								4E-07					9E-03
		Exposure Point Total									8E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	2.8E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.0E-10	2.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	3.6E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	2.6E-09	3.6E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	5.9E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.3E-10	5.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	2.5E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	1.8E-11	2.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	1.5E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.1E-10	1.5E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	3.3E-10	mg/kg-day	N/A	N/A	N/A	3.3E-09	mg/kg-day	2.0E-02	mg/kg-day	1.7E-07
				Antimony	6E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	4.0E-04	mg/kg-day	3.7E-04
				Arsenic	2E+02	mg/kg	6.0E-07	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	4.6E-07	6.0E-06	mg/kg-day	5.9E-04	mg/kg-day	1.0E-02
				Barium	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.0E-02	mg/kg-day	2.3E-05
				Cadmium	6E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-03	mg/kg-day	1.4E-04
				Chromium III	6E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.5E+00	mg/kg-day	9.7E-06
				Copper	4E+02	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.4E-04
				Lead												
				Manganese	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Mercury	3E+00	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	8.7E-08	mg/kg-day	1.0E-04	mg/kg-day	8.7E-04
				Nickel	2E+01	mg/kg	3.9E-08	mg/kg-day	N/A	N/A	N/A	3.9E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Vanadium	3E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	1.0E-03	mg/kg-day	7.8E-04
				Zinc	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	7.9E-05
				Chromium VI	7E-01	mg/kg	1.9E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	3.0E-03	mg/kg-day	6.3E-06
			Exp. Route Total								5E-07					1E-02
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	5.8E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.2E-10	5.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	7.4E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	5.4E-09	7.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	9.0E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	5.2E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	3.8E-11	5.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	3.2E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.3E-10	3.2E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	6.9E-10	mg/kg-day	N/A	N/A	N/A	6.9E-09	mg/kg-day	2.0E-02	mg/kg-day	3.4E-07
				Arsenic	2E+02	mg/kg	2.9E-07	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.3E-07	2.9E-06	mg/kg-day	3.0E-04	mg/kg-day	9.6E-03
				Cadmium	6E+00	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	2.5E-05	mg/kg-day	9.1E-04
			Exp. Route Total								4E-07					1E-02
		Exposure Point Total									9E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	8.9E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	1.3E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.3E-09	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.4E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-09	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	3.1E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	2.2E-10	3.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	2.0E-10	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-09	2.0E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	6.4E-10	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.7E-10	6.4E-09	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	4.0E-04	mg/kg-day	6.4E-05
				Arsenic	3E+01	mg/kg	8.9E-08	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.8E-08	8.9E-07	mg/kg-day	5.9E-04	mg/kg-day	1.5E-03
				Barium	3E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	8.4E-07	mg/kg-day	7.0E-02	mg/kg-day	1.2E-05
				Cadmium	7E-01	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	1.0E-03	mg/kg-day	1.7E-05
				Chromium III	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.5E+00	mg/kg-day	1.0E-06
				Copper	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-02	mg/kg-day	5.4E-05
				Lead												
				Manganese	4E+02	mg/kg	9.3E-07	mg/kg-day	N/A	N/A	N/A	9.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	4E-01	mg/kg	9.8E-10	mg/kg-day	N/A	N/A	N/A	9.8E-09	mg/kg-day	1.0E-04	mg/kg-day	9.8E-05
				Nickel	1E+01	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
				Thallium	1E+00	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	8.0E-05	mg/kg-day	4.1E-04
				Vanadium	1E+01	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	3.5E-04
				Zinc	2E+02	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-01	mg/kg-day	2.0E-05
			Exp. Route Total								8E-08					3E-03
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.8E-09	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.7E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.9E-08	2.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.0E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	5.1E-09	7.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.4E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	4.7E-10	6.4E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	4.2E-10	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.1E-09	4.2E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.7E-10	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.0E-02	mg/kg-day	8.1E-07
				Arsenic	3E+01	mg/kg	4.2E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-08	4.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Cadmium	7E-01	mg/kg	2.8E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					4E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	5.1E-08	mg/kg-day	4.0E-04	mg/kg-day	1.3E-04
				Arsenic	1E+02	mg/kg	3.1E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.4E-07	3.1E-06	mg/kg-day	5.9E-04	mg/kg-day	5.2E-03
				Barium	6E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	7.0E-02	mg/kg-day	2.1E-05
				Cadmium	4E+00	mg/kg	9.9E-09	mg/kg-day	N/A	N/A	N/A	9.9E-08	mg/kg-day	1.0E-03	mg/kg-day	9.9E-05
				Chromium III	3E+02	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	1.5E+00	mg/kg-day	5.5E-06
				Copper	2E+02	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	3.0E-02	mg/kg-day	1.7E-04
				Lead												
				Manganese	1E+03	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	7.0E-02	mg/kg-day	4.1E-04
				Mercury	2E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	1.0E-04	mg/kg-day	4.8E-04
				Nickel	2E+01	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.3E-05
				Thallium	4E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.4E-04
				Vanadium	3E+01	mg/kg	6.8E-08	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Zinc	9E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.0E-05
			Exp. Route Total								2E-07					7E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	4E+00	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.3E-04
			Exp. Route Total								2E-07					6E-03
		Exposure Point Total									5E-07					1E-02
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-07	1.3E-06	mg/kg-day	5.9E-04	mg/kg-day	2.2E-03
				Barium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.5E-05
				Cadmium	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	1.0E-03	mg/kg-day	2.6E-05
				Chromium III	9E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.5E+00	mg/kg-day	1.5E-06
				Copper	1E+02	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.5E-05
				Lead												
				Manganese	4E+02	mg/kg	9.2E-07	mg/kg-day	N/A	N/A	N/A	9.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	9E-01	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	1.0E-04	mg/kg-day	2.3E-04
				Nickel	9E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05
				Vanadium	2E+01	mg/kg	5.9E-08	mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	1.0E-03	mg/kg-day	5.9E-04
				Zinc	3E+02	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.0E-05
			Exp. Route Total								1E-07					3E-03
			Dermal													
				Arsenic	5E+01	mg/kg	6.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.5E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	1E+00	mg/kg	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	2.5E-05	mg/kg-day	1.7E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					6E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.0E-10	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	3.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	2.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-09	2.4E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.4E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	4.0E-04	mg/kg-day	6.6E-05
				Arsenic	2E+01	mg/kg	4.8E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-08	4.8E-07	mg/kg-day	5.9E-04	mg/kg-day	8.1E-04
				Barium	2E+01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	7.0E-02	mg/kg-day	6.9E-06
				Chromium III	5E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.5E+00	mg/kg-day	9.2E-07
				Copper	7E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	3.0E-02	mg/kg-day	6.2E-05
				Lead												
				Manganese	2E+02	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	7.0E-02	mg/kg-day	5.8E-05
				Mercury	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	1.0E-04	mg/kg-day	1.2E-04
				Nickel	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.0E-02	mg/kg-day	1.6E-05
				Thallium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	8.0E-05	mg/kg-day	4.6E-04
				Vanadium	1E+01	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	1.0E-03	mg/kg-day	3.8E-04
				Zinc	4E+02	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.0E-05
			Exp. Route Total								5E-08					2E-03
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	2.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	3.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.4E-08	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	6.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.9E-09	6.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	7.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.2E-10	7.1E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	4.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.6E-09	4.9E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.3E-06
				Arsenic	2E+01	mg/kg	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.6E-04
			Exp. Route Total								7E-08					8E-04
		Exposure Point Total									1E-07					3E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	5.6E-11	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-11	5.6E-10	mg/kg-day	3.0E-04	mg/kg-day	1.9E-06
				Benzo(a)anthracene	6E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-07	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	2.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	2.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	2.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-08	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.2E-09	9.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.7E-06
				Aroclor 1260	7E-02	mg/kg	1.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.7E-10	1.7E-09	mg/kg-day	2.0E-05	mg/kg-day	8.4E-05
				Antimony	2E+00	mg/kg	5.9E-09	mg/kg-day	N/A	N/A	N/A	5.9E-08	mg/kg-day	4.0E-04	mg/kg-day	1.5E-04
				Arsenic	8E+01	mg/kg	2.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-07	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.4E-03
				Barium	8E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.0E-02	mg/kg-day	3.1E-05
				Cadmium	5E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	1.0E-03	mg/kg-day	1.3E-04
				Chromium III	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	1.5E+00	mg/kg-day	4.2E-06
				Copper	2E+02	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.0E-04
				Lead												
				Manganese	4E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	3E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	7.1E-08	mg/kg-day	1.0E-04	mg/kg-day	7.1E-04
				Nickel	3E+01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	2.0E-02	mg/kg-day	3.5E-05
				Thallium	2E+00	mg/kg	5.6E-09	mg/kg-day	N/A	N/A	N/A	5.6E-08	mg/kg-day	8.0E-05	mg/kg-day	7.0E-04
				Vanadium	5E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Zinc	1E+03	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	3.0E-01	mg/kg-day	1.1E-04
			Exp. Route Total								3E-07					7E-03
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	2.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-07	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	4.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.5E-09	4.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	5.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-08	5.7E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Aroclor 1260	7E-02	mg/kg	3.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.8E-10	3.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.9E-04
				Arsenic	8E+01	mg/kg	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-07	9.7E-07	mg/kg-day	3.0E-04	mg/kg-day	3.2E-03
				Cadmium	5E+00	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	2.5E-05	mg/kg-day	8.3E-04
			Exp. Route Total								5E-07					4E-03
		Exposure Point Total									8E-07					1E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	4.0E-04	mg/kg-day	1.2E-04
				Arsenic	1E+02	mg/kg	3.8E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.9E-07	3.8E-06	mg/kg-day	5.9E-04	mg/kg-day	6.5E-03
				Barium	4E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.5E-05
				Cadmium	3E+00	mg/kg	7.4E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	1.0E-03	mg/kg-day	7.4E-05
				Chromium III	9E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.5E+00	mg/kg-day	1.5E-06
				Copper	5E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	4.1E-04
				Lead												
				Manganese	2E+02	mg/kg	5.3E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	7.0E-02	mg/kg-day	7.6E-05
				Mercury	8E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	1.0E-04	mg/kg-day	2.1E-04
				Nickel	1E+01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Thallium	2E+00	mg/kg	5.0E-09	mg/kg-day	N/A	N/A	N/A	5.0E-08	mg/kg-day	8.0E-05	mg/kg-day	6.3E-04
				Vanadium	2E+01	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	1.0E-03	mg/kg-day	5.8E-04
				Zinc	2E+03	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	3.0E-01	mg/kg-day	1.4E-04
			Exp. Route Total								3E-07					9E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.1E-03
				Cadmium	3E+00	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.7E-04
			Exp. Route Total								3E-07					7E-03
		Exposure Point Total									6E-07					2E-02
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	6.4E-09	mg/kg-day	N/A	N/A	N/A	6.4E-08	mg/kg-day	4.0E-04	mg/kg-day	1.6E-04
				Arsenic	1E+02	mg/kg	3.0E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-07	3.0E-06	mg/kg-day	5.9E-04	mg/kg-day	5.0E-03
				Barium	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	7.0E-02	mg/kg-day	3.7E-05
				Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	1.0E-03	mg/kg-day	3.0E-04
				Chromium III	7E+02	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.5E+00	mg/kg-day	1.3E-05
				Copper	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-02	mg/kg-day	4.3E-04
				Lead												
				Manganese	4E+02	mg/kg	9.7E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Mercury	3E+00	mg/kg	7.8E-09	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	1.0E-04	mg/kg-day	7.8E-04
				Nickel	4E+01	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	2.0E-02	mg/kg-day	4.7E-05
				Thallium	1E+00	mg/kg	2.7E-09	mg/kg-day	N/A	N/A	N/A	2.7E-08	mg/kg-day	8.0E-05	mg/kg-day	3.4E-04
				Vanadium	7E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Zinc	2E+03	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.9E-04
			Exp. Route Total								2E-07					9E-03
			Dermal													
				Arsenic	1E+02	mg/kg	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-07	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.7E-03
				Cadmium	1E+01	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					7E-03
		Exposure Point Total									4E-07					2E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	4E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.0E-10	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	8.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.4E-09	8.8E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	9.0E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.6E-10	9.0E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	6.5E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.7E-11	6.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	4.4E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.2E-10	4.4E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.0E-02	mg/kg-day	8.7E-07
				Antimony	9E-01	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	4.0E-04	mg/kg-day	6.0E-05
				Arsenic	8E+00	mg/kg	2.1E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.1E-07	mg/kg-day	5.9E-04	mg/kg-day	3.6E-04
				Barium	3E+01	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	8.8E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	2E-01	mg/kg	5.6E-10	mg/kg-day	N/A	N/A	N/A	5.6E-09	mg/kg-day	1.0E-03	mg/kg-day	5.6E-06
				Chromium III	3E+01	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	1.5E+00	mg/kg-day	5.7E-07
				Copper	3E+01	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	3.0E-02	mg/kg-day	2.1E-05
				Lead												
				Manganese	4E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.5E-04
				Mercury	9E-02	mg/kg	2.3E-10	mg/kg-day	N/A	N/A	N/A	2.3E-09	mg/kg-day	1.0E-04	mg/kg-day	2.3E-05
				Nickel	1E+01	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.3E-05
				Thallium	6E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	8.0E-05	mg/kg-day	2.0E-04
				Vanadium	2E+01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	1.0E-03	mg/kg-day	4.8E-04
				Zinc	1E+02	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	3.0E-01	mg/kg-day	1.0E-05
			Exp. Route Total								2E-08					1E-03
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	2.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-08	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.8E-11	1.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	9.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.7E-10	9.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	2.0E-02	mg/kg-day	1.8E-06
				Arsenic	8E+00	mg/kg	1.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-08	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.3E-04
				Cadmium	2E-01	mg/kg	8.9E-11	mg/kg-day	N/A	N/A	N/A	8.9E-10	mg/kg-day	2.5E-05	mg/kg-day	3.6E-05
			Exp. Route Total								3E-08					4E-04
		Exposure Point Total									6E-08					2E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	6E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-09	1.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.6E-09	1.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	8.8E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.4E-11	8.8E-09	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	2.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.0E-09	2.8E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	8.6E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.3E-10	8.6E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.0E-02	mg/kg-day	5.9E-07
				Aroclor 1260	5E-02	mg/kg	1.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.3E-10	1.3E-09	mg/kg-day	2.0E-05	mg/kg-day	6.3E-05
				Antimony	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	4.0E-04	mg/kg-day	5.1E-05
				Arsenic	3E+01	mg/kg	8.4E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.5E-08	8.4E-07	mg/kg-day	5.9E-04	mg/kg-day	1.4E-03
				Barium	4E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	8.9E-07	mg/kg-day	7.0E-02	mg/kg-day	1.3E-05
				Cadmium	2E+00	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	4.4E-08	mg/kg-day	1.0E-03	mg/kg-day	4.4E-05
				Chromium III	7E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.5E+00	mg/kg-day	1.2E-06
				Copper	6E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-02	mg/kg-day	5.2E-05
				Lead												
				Manganese	2E+02	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	7.0E-02	mg/kg-day	7.8E-05
				Mercury	3E-01	mg/kg	6.7E-10	mg/kg-day	N/A	N/A	N/A	6.7E-09	mg/kg-day	1.0E-04	mg/kg-day	6.7E-05
				Nickel	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.0E-02	mg/kg-day	1.6E-05
				Vanadium	2E+01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	5.7E-07	mg/kg-day	1.0E-03	mg/kg-day	5.7E-04
				Zinc	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.4E-05
			Exp. Route Total								8E-08					2E-03
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-09	3.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	2.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-08	2.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	3.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.3E-09	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	5.8E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.2E-09	5.8E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-09	1.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Aroclor 1260	5E-02	mg/kg	2.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-10	2.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.4E-04
				Arsenic	3E+01	mg/kg	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-08	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Cadmium	2E+00	mg/kg	7.1E-10	mg/kg-day	N/A	N/A	N/A	7.1E-09	mg/kg-day	2.5E-05	mg/kg-day	2.8E-04
			Exp. Route Total								9E-08					2E-03
		Exposure Point Total									2E-07					4E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	2E-01	mg/kg	4.9E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.6E-10	4.9E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	4.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-09	4.4E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	4.2E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-10	4.2E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	4.5E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.3E-11	4.5E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	3.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-10	3.1E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.0E-02	mg/kg-day	5.9E-07
				Antimony	9E-01	mg/kg	2.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	4.0E-04	mg/kg-day	5.6E-05
				Arsenic	6E+00	mg/kg	1.6E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.2E-08	1.6E-07	mg/kg-day	5.9E-04	mg/kg-day	2.7E-04
				Barium	1E+01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	7.0E-02	mg/kg-day	4.5E-06
				Cadmium	2E-01	mg/kg	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	1.0E-03	mg/kg-day	4.2E-06
				Chromium III	8E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	1.5E+00	mg/kg-day	1.4E-07
				Copper	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	3.0E-02	mg/kg-day	9.9E-06
				Lead												
				Manganese	8E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.0E-02	mg/kg-day	3.0E-05
				Nickel	6E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.1E-06
				Thallium	5E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	8.0E-05	mg/kg-day	1.6E-04
				Vanadium	1E+01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Zinc	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	3.0E-01	mg/kg-day	8.7E-06
			Exp. Route Total								2E-08					8E-04
			Dermal													
				Benzo(a)anthracene	2E-01	mg/kg	1.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.4E-10	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	9.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.7E-09	9.2E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	8.7E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-10	8.7E-09	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	9.3E-10	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.8E-11	9.3E-09	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	6.3E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.6E-10	6.3E-09	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.0E-02	mg/kg-day	1.2E-06
				Arsenic	6E+00	mg/kg	7.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-08	7.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Cadmium	2E-01	mg/kg	6.8E-11	mg/kg-day	N/A	N/A	N/A	6.8E-10	mg/kg-day	2.5E-05	mg/kg-day	2.7E-05
			Exp. Route Total								2E-08					3E-04
		Exposure Point Total									4E-08					1E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.7E-07	5.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	2E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	1.0E-03	mg/kg-day	5.4E-05
				Chromium VI	2E+02	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	3.0E-03	mg/kg-day	1.5E-03
				Copper	2E+02	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	3.0E-02	mg/kg-day	1.5E-04
				Manganese	3E+02	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Mercury	8E-01	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	2.0E-08	mg/kg-day	1.0E-04	mg/kg-day	2.0E-04
				Vanadium	3E+01	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	1.0E-03	mg/kg-day	6.4E-04
				Zinc	5E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.5E-05
			Exp. Route Total								8E-07					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.1E-03
				Cadmium	2E+00	mg/kg	8.7E-10	mg/kg-day	N/A	N/A	N/A	8.7E-09	mg/kg-day	2.5E-05	mg/kg-day	3.5E-04
			Exp. Route Total								4E-07					8E-03
		Exposure Point Total									1E-06					3E-02
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	7.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Cadmium	2E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	1.0E-03	mg/kg-day	1.5E-05
				Chromium VI	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	3.0E-03	mg/kg-day	4.7E-04
				Copper	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	6.8E-05
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Mercury	1E-01	mg/kg	9.0E-10	mg/kg-day	N/A	N/A	N/A	9.0E-09	mg/kg-day	1.0E-04	mg/kg-day	9.0E-05
				Thallium	1E+00	mg/kg	9.1E-09	mg/kg-day	N/A	N/A	N/A	9.1E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	2E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	1.0E-03	mg/kg-day	1.8E-03
				Zinc	7E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	3.0E-01	mg/kg-day	1.8E-05
			Exp. Route Total								1E-07					6E-03
			Dermal													
				Arsenic	1E+01	mg/kg	3.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.5E-08	3.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.2E-03
				Cadmium	2E-01	mg/kg	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.4E-09	mg/kg-day	2.5E-05	mg/kg-day	9.5E-05
			Exp. Route Total								5E-08					1E-03
		Exposure Point Total									2E-07					8E-03

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-07	4.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.5E-02
				Cadmium	7E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	5.2E-08	mg/kg-day	1.0E-03	mg/kg-day	5.2E-05
				Chromium VI	1E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	3.0E-03	mg/kg-day	3.5E-03
				Copper	5E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	3.0E-02	mg/kg-day	1.3E-04
				Manganese	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04
				Mercury	3E-01	mg/kg	2.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	1.0E-04	mg/kg-day	2.2E-04
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.6E-03
				Vanadium	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Zinc	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	3.0E-01	mg/kg-day	4.2E-05
			Exp. Route Total								7E-07					2E-02
			Dermal													
				Arsenic	6E+01	mg/kg	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-07	2.2E-06	mg/kg-day	3.0E-04	mg/kg-day	7.3E-03
				Cadmium	7E-01	mg/kg	8.3E-10	mg/kg-day	N/A	N/A	N/A	8.3E-09	mg/kg-day	2.5E-05	mg/kg-day	3.3E-04
			Exp. Route Total								3E-07					8E-03
		Exposure Point Total									1E-06					3E-02
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	5.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.4E-07	5.0E-06	mg/kg-day	3.0E-04	mg/kg-day	1.7E-02
				Cadmium	1E+00	mg/kg	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.4E-08	mg/kg-day	1.0E-03	mg/kg-day	3.4E-05
				Chromium VI	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	3.0E-03	mg/kg-day	3.3E-03
				Copper	2E+02	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	3.0E-02	mg/kg-day	2.1E-04
				Manganese	8E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04
				Mercury	1E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	1.0E-04	mg/kg-day	3.0E-04
				Thallium	3E+00	mg/kg	8.5E-09	mg/kg-day	N/A	N/A	N/A	8.5E-08	mg/kg-day	8.0E-05	mg/kg-day	1.1E-03
				Vanadium	4E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	1.0E-03	mg/kg-day	9.6E-04
				Zinc	6E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-01	mg/kg-day	5.0E-05
			Exp. Route Total								7E-07					2E-02
			Dermal													
				Arsenic	2E+02	mg/kg	2.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	7.9E-03
				Cadmium	1E+00	mg/kg	5.5E-10	mg/kg-day	N/A	N/A	N/A	5.5E-09	mg/kg-day	2.5E-05	mg/kg-day	2.2E-04
			Exp. Route Total								4E-07					8E-03
		Exposure Point Total									1E-06					3E-02

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TABLE 3-7.1.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	3.9E-03
				Cadmium	1E+00	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	1.0E-03	mg/kg-day	3.6E-05
				Chromium VI	1E+02	mg/kg	3.0E-07	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	1.0E-03
				Copper	1E+02	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.2E-05
				Manganese	8E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	3.0E-04
				Mercury	7E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	1.0E-04	mg/kg-day	1.8E-04
				Vanadium	3E+01	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	1.0E-03	mg/kg-day	7.4E-04
				Zinc	4E+02	mg/kg	9.9E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	3.0E-01	mg/kg-day	3.3E-05
			Exp. Route Total								2E-07					6E-03
			Dermal													
				Arsenic	5E+01	mg/kg	5.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-08	5.6E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				Cadmium	1E+00	mg/kg	5.7E-10	mg/kg-day	N/A	N/A	N/A	5.7E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								8E-08					2E-03
		Exposure Point Total									3E-07					8E-03
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.8E-03
				Cadmium	2E-01	mg/kg	4.8E-10	mg/kg-day	N/A	N/A	N/A	4.8E-09	mg/kg-day	1.0E-03	mg/kg-day	4.8E-06
				Chromium VI	1E+02	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	3.0E-03	mg/kg-day	1.2E-03
				Copper	1E+02	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	3.0E-02	mg/kg-day	8.6E-05
				Manganese	3E+02	mg/kg	8.4E-07	mg/kg-day	N/A	N/A	N/A	8.4E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Mercury	1E+00	mg/kg	2.4E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	1.0E-04	mg/kg-day	2.4E-04
				Thallium	2E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	8.0E-05	mg/kg-day	6.0E-04
				Vanadium	3E+01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	8.0E-07	mg/kg-day	1.0E-03	mg/kg-day	8.0E-04
				Zinc	2E+04	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	4.8E-04	mg/kg-day	3.0E-01	mg/kg-day	1.6E-03
			Exp. Route Total								2E-07					8E-03
			Dermal													
				Arsenic	4E+01	mg/kg	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.1E-08	5.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.8E-03
				Cadmium	2E-01	mg/kg	7.7E-11	mg/kg-day	N/A	N/A	N/A	7.7E-10	mg/kg-day	2.5E-05	mg/kg-day	3.1E-05
			Exp. Route Total								8E-08					2E-03
		Exposure Point Total									3E-07					1E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.1.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	2.4E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	5.7E-09	2.4E-07	mg/kg-day	2.0E-03	mg/kg-day	1.2E-04
				4,4'-DDE	2E-02	mg/kg	5.7E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	1.9E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				4,4'-DDT	3E-03	mg/kg	1.0E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	3.4E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04
				Aldrin	3E-04	mg/kg	1.1E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	1.9E-08	1.1E-08	mg/kg-day	3.0E-05	mg/kg-day	3.8E-04
				alpha-Chlordane	6E-03	mg/kg	2.1E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	7.2E-09	2.1E-07	mg/kg-day	5.0E-04	mg/kg-day	4.1E-04
				Aroclor-1254	2E-02	mg/kg	7.8E-08	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	7.8E-08	7.8E-07	mg/kg-day	2.0E-05	mg/kg-day	3.9E-02
				Aroclor-1260	6E-02	mg/kg	2.2E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	2.2E-07	2.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01
				delta-BHC	5E-04	mg/kg	1.9E-09	mg/kg-day	N/A	N/A	N/A	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.4E-05
				Dieldrin	2E-03	mg/kg	7.9E-09	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	1.3E-07	7.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.6E-03
				Heptachlor epoxide	8E-04	mg/kg	3.0E-09	mg/kg-day	9.1E+00	$(mg/kg-day)^{-1}$	2.8E-08	3.0E-08	mg/kg-day	1.3E-05	mg/kg-day	2.3E-03
				Antimony	9E-02	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Lead												
				Mercury	4E-01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-04	mg/kg-day	1.3E-01
				Selenium	6E-01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	5.0E-03	mg/kg-day	4.1E-03
			Exp. Route Total								5E-07					3E-01
		Exposure Point Total									5E-07					3E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	5.6E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	1.4E-08	5.6E-07	mg/kg-day	2.0E-03	mg/kg-day	2.8E-04
				4,4'-DDE	9E-02	mg/kg	3.1E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	1.0E-07	3.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.0E-02
				4,4'-DDT	8E-03	mg/kg	2.9E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	9.8E-09	2.9E-07	mg/kg-day	5.0E-04	mg/kg-day	5.8E-04
				Aldrin	5E-04	mg/kg	1.9E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	3.2E-08	1.9E-08	mg/kg-day	3.0E-05	mg/kg-day	6.3E-04
				alpha-Chlordane	3E-03	mg/kg	9.1E-09	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	3.2E-09	9.1E-08	mg/kg-day	5.0E-04	mg/kg-day	1.8E-04
				Aroclor-1254	9E-02	mg/kg	3.1E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	3.1E-07	3.1E-06	mg/kg-day	2.0E-05	mg/kg-day	1.5E-01
				Aroclor-1260	2E-01	mg/kg	6.7E-07	mg/kg-day	1.0E+00	$(mg/kg-day)^{-1}$	6.7E-07	6.7E-06	mg/kg-day	2.0E-05	mg/kg-day	3.4E-01
				Dieldrin	1E-03	mg/kg	5.3E-09	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	8.4E-08	5.3E-08	mg/kg-day	5.0E-05	mg/kg-day	1.1E-03
				Antimony	8E-02	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	4.0E-04	mg/kg-day	6.8E-03
				Lead												
				Mercury	3E-01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-04	mg/kg-day	1.1E-01
				Selenium	7E-01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	5.0E-03	mg/kg-day	4.8E-03
			Exp. Route Total								1E-06					6E-01
		Exposure Point Total									1E-06					6E-01

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TABLE 3-7.1.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	7.1E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.7E-08	7.1E-07	mg/kg-day	2.0E-03	mg/kg-day	3.6E-04
				4,4'-DDE	6E-02	mg/kg	2.1E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	7.1E-08	2.1E-06	mg/kg-day	3.0E-04	mg/kg-day	6.9E-03
				4,4'-DDT	5E-03	mg/kg	1.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	5.7E-09	1.7E-07	mg/kg-day	5.0E-04	mg/kg-day	3.3E-04
				Aldrin	5E-04	mg/kg	1.9E-09	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	3.2E-08	1.9E-08	mg/kg-day	3.0E-05	mg/kg-day	6.3E-04
				alpha-Chlordane	8E-03	mg/kg	3.0E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	1.0E-08	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	6.0E-04
				Aroclor-1248	8E-03	mg/kg	2.8E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-08	2.8E-07	mg/kg-day	2.0E-05	mg/kg-day	1.4E-02
				Aroclor-1254	1E-01	mg/kg	4.6E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	4.6E-07	4.6E-06	mg/kg-day	2.0E-05	mg/kg-day	2.3E-01
				Aroclor-1260	8E-02	mg/kg	2.8E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-07	2.8E-06	mg/kg-day	2.0E-05	mg/kg-day	1.4E-01
				Dieldrin	2E-03	mg/kg	7.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	1.2E-07	7.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.5E-03
				Heptachlor epoxide	5E-04	mg/kg	1.9E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.7E-08	1.9E-08	mg/kg-day	1.3E-05	mg/kg-day	1.5E-03
				Arsenic	2E-01	mg/kg	5.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-07	5.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.9E-02
				Lead												
				Mercury	1E-01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	1.0E-04	mg/kg-day	5.2E-02
				Selenium	6E-01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	5.0E-03	mg/kg-day	4.5E-03
			Exp. Route Total								2E-06					5E-01
		Exposure Point Total									2E-06					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.4E-09	1.7E-09	mg/kg-day	1.3E-05	mg/kg-day	1.3E-04
				Arsenic	5E+01	ug/L	5.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-08	6.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	3E+00	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	2.5E-05	mg/kg-day	1.3E-03
				Chromium VI	6E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.5E-05	mg/kg-day	2.1E-02
				Lead												
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	6E-01	ug/L	6.9E-10	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.1E-05	mg/kg-day	3.9E-04
			Exp. Route Total								8E-08					3E-02
		Exposure Point Total									8E-08					3E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.4E-09	1.7E-09	mg/kg-day	1.3E-05	mg/kg-day	1.3E-04
				Arsenic	5E+01	ug/L	5.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-08	6.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	3E+00	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	2.5E-05	mg/kg-day	1.3E-03
				Chromium VI	6E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.5E-05	mg/kg-day	2.1E-02
				Lead												
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	6E-01	ug/L	6.9E-10	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.1E-05	mg/kg-day	3.9E-04
			Exp. Route Total								8E-08					3E-02
		Exposure Point Total									8E-08					3E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.4E-09	1.7E-09	mg/kg-day	1.3E-05	mg/kg-day	1.3E-04
				Arsenic	5E+01	ug/L	5.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-08	6.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	3E+00	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	2.5E-05	mg/kg-day	1.3E-03
				Chromium VI	6E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.5E-05	mg/kg-day	2.1E-02
				Lead												
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	6E-01	ug/L	6.9E-10	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.1E-05	mg/kg-day	3.9E-04
			Exp. Route Total								8E-08					3E-02
		Exposure Point Total									8E-08					3E-02

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.4E-09	1.7E-09	mg/kg-day	1.3E-05	mg/kg-day	1.3E-04
				Arsenic	5E+01	ug/L	5.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-08	6.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	3E+00	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	2.5E-05	mg/kg-day	1.3E-03
				Chromium VI	6E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.5E-05	mg/kg-day	2.1E-02
				Lead												
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	6E-01	ug/L	6.9E-10	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.1E-05	mg/kg-day	3.9E-04
			Exp. Route Total								8E-08					3E-02
		Exposure Point Total									8E-08					3E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	1.4E-09	1.7E-09	mg/kg-day	1.3E-05	mg/kg-day	1.3E-04
				Arsenic	5E+01	ug/L	5.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-08	6.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Cadmium	3E+00	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.3E-08	mg/kg-day	2.5E-05	mg/kg-day	1.3E-03
				Chromium VI	6E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.5E-05	mg/kg-day	2.1E-02
				Lead												
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	6E-01	ug/L	6.9E-10	mg/kg-day	N/A	N/A	N/A	8.1E-09	mg/kg-day	2.1E-05	mg/kg-day	3.9E-04
			Exp. Route Total								8E-08					3E-02
		Exposure Point Total									8E-08					3E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.9E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	5.4E-09	6.9E-09	mg/kg-day	1.3E-05	mg/kg-day	5.3E-04
				Arsenic	5E+01	ug/L	2.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.2E-07	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	8.2E-03
				Cadmium	3E+00	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.3E-03
				Chromium VI	6E+01	ug/L	5.4E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	7.5E-05	mg/kg-day	8.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	6E-01	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.2E-08	mg/kg-day	2.1E-05	mg/kg-day	1.5E-03
			Exp. Route Total								3E-07					1E-01
		Exposure Point Total									3E-07					1E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
				Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
			Exp. Route Total								3E-08					8E-03
		Exposure Point Total									3E-08					8E-03
		Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
				Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
			Exp. Route Total								3E-08					8E-03
		Exposure Point Total									3E-08					8E-03

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	7.1E-09	mg/kg-day	N/A	N/A	N/A	8.2E-08	mg/kg-day	7.5E-05	mg/kg-day	1.1E-03
				Lead												
				Manganese	6E+02	ug/L	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	2.8E-03	mg/kg-day	2.8E-03
				Mercury	2E-01	ug/L	2.5E-10	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.1E-05	mg/kg-day	1.4E-04
			Exp. Route Total								N/A					4E-03
		Exposure Point Total									N/A					4E-03
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	2.9E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	5E+02	ug/L	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.8E-03	mg/kg-day	7.2E-03
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	4.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-02	mg/kg-day	5.2E-05
				Tetrachloroethene	2E+00	ug/L	5.9E-07	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	3.2E-07	6.9E-06	mg/kg-day	1.0E-02	mg/kg-day	6.9E-04
				Chromium VI	9E-01	ug/L	5.8E-09	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	7.5E-05	mg/kg-day	9.0E-04
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03
			Exp. Route Total								3E-07					6E-03
		Exposure Point Total									3E-07					6E-03

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03
		Station 03 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03
		Station 02 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	9.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.7E-03
				Chromium VI	2E+00	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	3.0E-03	mg/kg-day	1.8E-04
				Lead												
				Manganese	7E+01	ug/L	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	7.0E-02	mg/kg-day	3.6E-04
				Mercury	4E-02	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	3.0E-04	mg/kg-day	4.7E-05
			Exp. Route Total								1E-07					4E-03
			Dermal													
				Arsenic	3E+00	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-08	1.5E-07	mg/kg-day	3.0E-04	mg/kg-day	4.9E-04
				Chromium VI	2E+00	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+01	ug/L	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	4E-02	ug/L	1.6E-10	mg/kg-day	N/A	N/A	N/A	1.9E-09	mg/kg-day	2.1E-05	mg/kg-day	9.0E-05
			Exp. Route Total								2E-08					4E-03
		Exposure Point Total									2E-07					8E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	8.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.7E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01
				Barium	6E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	7.0E-02	mg/kg-day	3.8E-04
				Cadmium	2E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Chromium III	3E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.5E+00	mg/kg-day	7.9E-05
				Copper	3E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-02	mg/kg-day	4.8E-03
				Lead												
				Manganese	2E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Mercury	4E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-04	mg/kg-day	2.1E-02
				Nickel	1E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	6.7E-06	mg/kg-day	2.0E-02	mg/kg-day	3.3E-04
				Vanadium	3E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	5E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	3.0E-01	mg/kg-day	7.7E-04
			Exp. Route Total								7E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-06	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.7E-02
				Cadmium	2E+00	mg/kg	5.0E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									9E-06					3E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	4.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.3E-08	5.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	3.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.6E-07	4.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	8.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.2E-08	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	4.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.3E-09	5.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	6.2E-05
				Antimony	1E+00	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	4.0E-04	mg/kg-day	1.2E-03
				Arsenic	7E+01	mg/kg	3.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-06	3.5E-05	mg/kg-day	5.9E-04	mg/kg-day	5.9E-02
				Barium	2E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	8.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Cadmium	1E+00	mg/kg	4.1E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	1.0E-03	mg/kg-day	4.7E-04
				Chromium III	2E+02	mg/kg	8.8E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.5E+00	mg/kg-day	6.8E-05
				Copper	6E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	3.0E-02	mg/kg-day	1.0E-03
				Lead												
				Manganese	2E+02	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	1E+00	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03
				Nickel	1E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	2.0E-02	mg/kg-day	2.5E-04
				Thallium	8E-01	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	8.0E-05	mg/kg-day	4.8E-03
				Vanadium	1E+01	mg/kg	5.4E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	1.0E-03	mg/kg-day	6.3E-03
				Zinc	3E+02	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	3.0E-01	mg/kg-day	4.3E-04
			Exp. Route Total								3E-06					8E-02
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	3.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-08	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-07	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.5E-08	7.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	3.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.4E-09	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	2.0E-02	mg/kg-day	4.5E-05
				Arsenic	7E+01	mg/kg	5.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.5E-07	5.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				Cadmium	1E+00	mg/kg	2.3E-09	mg/kg-day	N/A	N/A	N/A	2.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.1E-03
			Exp. Route Total								1E-06					2E-02
		Exposure Point Total									4E-06					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	1.1E-07	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	6.1E-08	1.3E-06	mg/kg-day	1.0E-02	mg/kg-day	1.3E-04
				Trichloroethene	7E-01	mg/kg	2.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.1E-08	3.3E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Benzo(a)anthracene	3E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.9E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	8.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.9E-08	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.6E-09	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-08	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
				Aroclor 1260	3E-02	mg/kg	1.2E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.4E-09	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	6.9E-04
				Antimony	3E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	4.0E-04	mg/kg-day	3.9E-01
				Arsenic	8E+01	mg/kg	3.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.4E-06	3.7E-05	mg/kg-day	5.9E-04	mg/kg-day	6.2E-02
				Barium	5E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	7.0E-02	mg/kg-day	3.4E-04
				Cadmium	1E+00	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	1.0E-03	mg/kg-day	6.8E-04
				Chromium III	6E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	1.5E+00	mg/kg-day	2.1E-05
				Copper	3E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.6E-04
				Lead												
				Manganese	1E+02	mg/kg	4.7E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.9E-04
				Mercury	5E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03
				Nickel	1E+01	mg/kg	4.6E-07	mg/kg-day	N/A	N/A	N/A	5.4E-06	mg/kg-day	2.0E-02	mg/kg-day	2.7E-04
				Vanadium	4E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-03	mg/kg-day	1.9E-02
				Zinc	1E+02	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	3.0E-01	mg/kg-day	1.5E-04
			Exp. Route Total								3E-06					5E-01
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	5.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.3E-08	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.5E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	1.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.2E-09	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	1.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.5E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	6.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.5E-06
				Aroclor 1260	3E-02	mg/kg	9.3E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.9E-09	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.4E-04
				Arsenic	8E+01	mg/kg	5.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.9E-07	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Cadmium	1E+00	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03
			Exp. Route Total								9E-07					2E-02
		Exposure Point Total									3E-06					5E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	2.2E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	8.6E-10	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.4E-05
				Benzo(a)anthracene	6E-01	mg/kg	2.3E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.7E-08	2.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	4.1E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.0E-07	4.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	6.1E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.5E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	2.9E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	2.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	1.3E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.5E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	3.0E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	2.0E-02	mg/kg-day	1.4E-05
				Aroclor 1260	6E-02	mg/kg	2.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	4.7E-09	2.8E-08	mg/kg-day	2.0E-05	mg/kg-day	1.4E-03
				Antimony	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.1E-02
				Arsenic	2E+03	mg/kg	7.8E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.0E-05	9.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.5E+00
				Barium	9E+01	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	7.0E-02	mg/kg-day	6.3E-04
				Cadmium	1E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	5.1E-06	mg/kg-day	1.0E-03	mg/kg-day	5.1E-03
				Chromium III	1E+03	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	1.5E+00	mg/kg-day	3.7E-04
				Copper	1E+03	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	5.7E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02
				Lead												
				Manganese	5E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.5E-03
				Mercury	3E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-04	mg/kg-day	1.3E-01
				Nickel	4E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	9.6E-04
				Thallium	8E-01	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	8.0E-05	mg/kg-day	4.6E-03
				Vanadium	1E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	4.6E-05	mg/kg-day	1.0E-03	mg/kg-day	4.6E-02
				Zinc	2E+03	mg/kg	9.4E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	3.7E-03
				Chromium VI	2E+00	mg/kg	6.2E-08	mg/kg-day	N/A	N/A	N/A	7.3E-07	mg/kg-day	3.0E-03	mg/kg-day	2.4E-04
			Exp. Route Total								6E-05					2E+00
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	1.7E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.2E-08	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	3.0E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.2E-07	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	4.4E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.2E-08	5.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	2.1E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	1.6E-09	2.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	9.5E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.9E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	2.0E-07	mg/kg-day	2.0E-02	mg/kg-day	9.9E-06
				Aroclor 1260	6E-02	mg/kg	1.9E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-09	2.2E-08	mg/kg-day	2.0E-05	mg/kg-day	1.1E-03
				Arsenic	2E+03	mg/kg	1.3E-05	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-05	1.5E-04	mg/kg-day	3.0E-04	mg/kg-day	5.1E-01
				Cadmium	1E+01	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02
			Exp. Route Total								2E-05					5E-01
		Exposure Point Total									8E-05					2E+00

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	1.7E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	6.8E-10	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.6E-05
				Benzo(a)anthracene	1E-01	mg/kg	5.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.9E-09	6.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	6.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.8E-08	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.6E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	8.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.9E-10	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	1.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-08	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	5.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.2E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	6.5E-09	mg/kg-day	N/A	N/A	N/A	7.6E-08	mg/kg-day	2.0E-02	mg/kg-day	3.8E-06
				Aroclor 1260	1E-02	mg/kg	4.5E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	9.0E-10	5.2E-09	mg/kg-day	2.0E-05	mg/kg-day	2.6E-04
				Antimony	9E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	4.0E-04	mg/kg-day	1.1E-02
				Arsenic	3E+02	mg/kg	1.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.2E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01
				Barium	9E+01	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	7.0E-02	mg/kg-day	6.4E-04
				Cadmium	6E+00	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	3.0E-06	mg/kg-day	1.0E-03	mg/kg-day	3.0E-03
				Chromium III	9E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.9E-04
				Copper	6E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-04	mg/kg-day	3.0E-02	mg/kg-day	9.9E-03
				Lead												
				Manganese	1E+03	mg/kg	4.1E-05	mg/kg-day	N/A	N/A	N/A	4.8E-04	mg/kg-day	7.0E-02	mg/kg-day	6.9E-03
				Mercury	3E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Nickel	3E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	8.2E-04
				Thallium	4E-01	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	8.0E-05	mg/kg-day	2.6E-03
				Vanadium	7E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	1.0E-03	mg/kg-day	3.1E-02
				Zinc	1E+03	mg/kg	4.4E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								8E-06					3E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	4.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.5E-08	5.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	8.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.3E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	5.9E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.3E-10	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-08	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.0E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.8E-06
				Aroclor 1260	1E-02	mg/kg	3.5E-10	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	7.0E-10	4.1E-09	mg/kg-day	2.0E-05	mg/kg-day	2.0E-04
				Arsenic	3E+02	mg/kg	1.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-06	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	7.0E-02
				Cadmium	6E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.8E-03
			Exp. Route Total								3E-06					8E-02
		Exposure Point Total									1E-05					4E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	8.0E-07	mg/kg-day	N/A	N/A	N/A	9.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	2E+02	mg/kg	3.7E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.8E-05	4.3E-04	mg/kg-day	5.9E-04	mg/kg-day	7.3E-01
				Barium	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.8E-03
				Cadmium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	1.0E-03	mg/kg-day	2.0E-02
				Chromium III	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	1.5E+00	mg/kg-day	9.2E-04
				Copper	4E+02	mg/kg	6.7E-05	mg/kg-day	N/A	N/A	N/A	7.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.6E-02
				Lead												
				Manganese	1E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.3E-03	mg/kg-day	7.0E-02	mg/kg-day	3.3E-02
				Mercury	1E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02
				Nickel	4E+01	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	6.9E-05	mg/kg-day	2.0E-02	mg/kg-day	3.4E-03
				Thallium	1E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	8.0E-05	mg/kg-day	2.6E-02
				Vanadium	4E+01	mg/kg	7.3E-06	mg/kg-day	N/A	N/A	N/A	8.5E-05	mg/kg-day	1.0E-03	mg/kg-day	8.5E-02
				Zinc	2E+03	mg/kg	3.3E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
				Chromium VI	9E-01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	3.0E-03	mg/kg-day	6.0E-04
			Exp. Route Total								3E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	6.2E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	9.3E-06	7.2E-05	mg/kg-day	3.0E-04	mg/kg-day	2.4E-01
				Cadmium	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.5E-05	mg/kg-day	4.6E-02
			Exp. Route Total								9E-06					3E-01
		Exposure Point Total									4E-05					1E+00

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	4.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-05	5.1E-04	mg/kg-day	5.9E-04	mg/kg-day	8.7E-01
				Barium	3E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Cadmium	7E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	1.0E-03	mg/kg-day	3.4E-03
				Chromium III	5E+03	mg/kg	2.2E-04	mg/kg-day	N/A	N/A	N/A	2.5E-03	mg/kg-day	1.5E+00	mg/kg-day	1.7E-03
				Copper	4E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-02	mg/kg-day	6.0E-02
				Lead												
				Manganese	2E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	9.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	9E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	1.0E-04	mg/kg-day	4.2E-01
				Nickel	8E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.9E-04
				Thallium	2E+00	mg/kg	6.1E-08	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	8.0E-05	mg/kg-day	8.9E-03
				Vanadium	2E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	1.0E-03	mg/kg-day	1.0E-02
				Zinc	1E+03	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03
				Chromium VI	7E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	3.0E-03	mg/kg-day	1.1E-03
			Exp. Route Total								3E-05					1E+00
			Dermal													
				Arsenic	1E+03	mg/kg	7.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-05	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01
				Cadmium	7E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03
			Exp. Route Total								1E-05					3E-01
		Exposure Point Total									4E-05					2E+00

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	4.0E-04	mg/kg-day	9.7E-03
				Arsenic	6E+01	mg/kg	9.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.3E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01
				Barium	6E+01	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	7.0E-02	mg/kg-day	1.6E-03
				Cadmium	9E+00	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-03	mg/kg-day	1.8E-02
				Chromium III	3E+02	mg/kg	5.4E-05	mg/kg-day	N/A	N/A	N/A	6.3E-04	mg/kg-day	1.5E+00	mg/kg-day	4.2E-04
				Copper	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	3.0E-02	mg/kg-day	4.7E-02
				Lead												
				Manganese	7E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02
				Mercury	3E+00	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	1.0E-04	mg/kg-day	5.6E-02
				Nickel	2E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	6.0E-02
				Vanadium	8E+01	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.0E-03	mg/kg-day	1.5E-01
				Zinc	6E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-01	mg/kg-day	4.0E-03
			Exp. Route Total								7E-06					6E-01
			Dermal													
				Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-06	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	6.2E-02
				Cadmium	9E+00	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02
			Exp. Route Total								2E-06					1E-01
		Exposure Point Total									1E-05					7E-01
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Arsenic	4E+01	mg/kg	6.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.2E-06	7.9E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
				Barium	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Cadmium	4E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Chromium III	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.8E-04
				Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.2E-03
				Lead												
				Manganese	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
				Mercury	3E-01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.2E-07	mg/kg-day	1.0E-04	mg/kg-day	6.2E-03
				Nickel	1E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	9.5E-04
				Vanadium	3E+01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	1.0E-03	mg/kg-day	6.1E-02
				Zinc	3E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	6.0E-04	mg/kg-day	3.0E-01	mg/kg-day	2.0E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Arsenic	4E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	4E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									7E-06					3E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	5E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	6E+02	mg/kg	9.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.5E-05	1.1E-03	mg/kg-day	5.9E-04	mg/kg-day	1.9E+00
				Barium	7E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03
				Cadmium	1E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.0E-03	mg/kg-day	2.5E-02
				Chromium III	8E+02	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	1.5E+00	mg/kg-day	9.7E-04
				Copper	4E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	3.0E-02	mg/kg-day	2.4E-02
				Lead												
				Manganese	5E+02	mg/kg	7.6E-05	mg/kg-day	N/A	N/A	N/A	8.8E-04	mg/kg-day	7.0E-02	mg/kg-day	1.3E-02
				Mercury	2E+00	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-04	mg/kg-day	4.7E-02
				Nickel	4E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	2.0E-02	mg/kg-day	3.5E-03
				Thallium	1E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	6E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.0E-03	mg/kg-day	1.2E-01
				Zinc	2E+03	mg/kg	3.4E-04	mg/kg-day	N/A	N/A	N/A	4.0E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
			Exp. Route Total								7E-05					2E+00
			Dermal													
				Arsenic	6E+02	mg/kg	1.6E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-05	1.9E-04	mg/kg-day	3.0E-04	mg/kg-day	6.3E-01
				Cadmium	1E+01	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.6E-02
			Exp. Route Total								2E-05					7E-01
		Exposure Point Total									1E-04					3E+00
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	2E+02	mg/kg	3.0E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-05	3.5E-04	mg/kg-day	5.9E-04	mg/kg-day	5.8E-01
				Barium	8E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Cadmium	6E+00	mg/kg	9.3E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-03	mg/kg-day	1.1E-02
				Chromium III	3E+02	mg/kg	4.4E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	1.5E+00	mg/kg-day	3.4E-04
				Copper	2E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	3.0E-02	mg/kg-day	1.5E-02
				Lead												
				Manganese	1E+03	mg/kg	2.2E-04	mg/kg-day	N/A	N/A	N/A	2.6E-03	mg/kg-day	7.0E-02	mg/kg-day	3.7E-02
				Mercury	1E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-04	mg/kg-day	2.3E-02
				Nickel	8E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	2.0E-02	mg/kg-day	7.3E-03
				Thallium	5E+00	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	8.0E-05	mg/kg-day	1.3E-01
				Vanadium	7E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.0E-03	mg/kg-day	1.3E-01
				Zinc	3E+03	mg/kg	5.0E-04	mg/kg-day	N/A	N/A	N/A	5.8E-03	mg/kg-day	3.0E-01	mg/kg-day	1.9E-02
			Exp. Route Total								2E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	5.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.5E-06	5.8E-05	mg/kg-day	3.0E-04	mg/kg-day	1.9E-01
				Cadmium	6E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.5E-05	mg/kg-day	2.4E-02
			Exp. Route Total								7E-06					2E-01
		Exposure Point Total									3E-05					1E+00

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.2E-02
				Arsenic	1E+02	mg/kg	2.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-05	2.7E-04	mg/kg-day	5.9E-04	mg/kg-day	4.5E-01
				Barium	5E+01	mg/kg	8.3E-06	mg/kg-day	N/A	N/A	N/A	9.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Cadmium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	1.0E-03	mg/kg-day	3.3E-02
				Chromium III	5E+02	mg/kg	8.1E-05	mg/kg-day	N/A	N/A	N/A	9.4E-04	mg/kg-day	1.5E+00	mg/kg-day	6.3E-04
				Copper	2E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.5E-02
				Lead												
				Manganese	9E+01	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.5E-03
				Mercury	3E-01	mg/kg	5.5E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	1.0E-04	mg/kg-day	6.4E-03
				Nickel	3E+01	mg/kg	4.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	2.0E-02	mg/kg-day	2.6E-03
				Thallium	4E+00	mg/kg	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	8.0E-05	mg/kg-day	9.8E-02
				Vanadium	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.0E-03	mg/kg-day	1.4E-01
				Zinc	2E+03	mg/kg	3.4E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
				Chromium VI	6E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	4.1E-04
			Exp. Route Total								2E-05					8E-01
			Dermal													
				Arsenic	1E+02	mg/kg	3.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-06	4.5E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Cadmium	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.5E-05	mg/kg-day	7.3E-02
			Exp. Route Total								6E-06					2E-01
		Exposure Point Total									2E-05					1E+00
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	8.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.6E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01
				Barium	6E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	7.0E-02	mg/kg-day	3.8E-04
				Cadmium	5E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Chromium III	7E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.3E-04
				Copper	4E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	3.0E-02	mg/kg-day	6.9E-03
				Lead												
				Manganese	6E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	3.1E-04	mg/kg-day	7.0E-02	mg/kg-day	4.4E-03
				Mercury	1E+00	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	1.0E-04	mg/kg-day	6.1E-03
				Nickel	2E+01	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.2E-04
				Vanadium	9E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	1.0E-03	mg/kg-day	4.3E-02
				Zinc	6E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-01	mg/kg-day	9.8E-04
			Exp. Route Total								7E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-06	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02
				Cadmium	5E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									9E-06					3E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.8E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.3E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.8E-10	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	7.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.3E-09	8.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.3E-06
				Antimony	6E+00	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	8.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02
				Arsenic	2E+02	mg/kg	2.9E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.2E-05	3.4E-04	mg/kg-day	5.9E-04	mg/kg-day	5.7E-01
				Barium	6E+01	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	8.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Cadmium	6E+00	mg/kg	6.8E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.0E-03	mg/kg-day	8.0E-03
				Chromium III	2E+03	mg/kg	2.7E-04	mg/kg-day	N/A	N/A	N/A	3.1E-03	mg/kg-day	1.5E+00	mg/kg-day	2.1E-03
				Copper	4E+02	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	5.7E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02
				Lead												
				Manganese	8E+02	mg/kg	9.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.6E-02
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	1.0E-04	mg/kg-day	4.9E-02
				Nickel	2E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	2.0E-02	mg/kg-day	1.1E-03
				Vanadium	3E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02
				Zinc	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	3.0E-01	mg/kg-day	4.4E-03
				Chromium VI	3E+00	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	3.0E-03	mg/kg-day	1.4E-03
			Exp. Route Total								2E-05					7E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.1E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-08	2.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	8.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.4E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.9E-09	6.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.7E-06
				Arsenic	2E+02	mg/kg	4.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.3E-06	5.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.9E-01
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
			Exp. Route Total								7E-06					2E-01
		Exposure Point Total									3E-05					9E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.3E-08	6.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	6.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.5E-07	7.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.1E-08	1.7E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.6E-03
				Arsenic	3E+01	mg/kg	4.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.3E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.4E-02
				Barium	3E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04
				Chromium III	6E+01	mg/kg	7.2E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	1.5E+00	mg/kg-day	5.6E-05
				Copper	6E+01	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	9.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.0E-03
				Lead												
				Manganese	3E+03	mg/kg	3.2E-04	mg/kg-day	N/A	N/A	N/A	3.8E-03	mg/kg-day	7.0E-02	mg/kg-day	5.4E-02
				Mercury	4E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03
				Nickel	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.0E-02	mg/kg-day	6.9E-04
				Thallium	1E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-03	mg/kg-day	1.9E-02
				Zinc	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								4E-06					2E-01
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-08	4.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	4.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.3E-07	5.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.6E-08	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.8E-09	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	7.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.2E-08	8.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	9.9E-05
				Arsenic	3E+01	mg/kg	7.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-06	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02
				Cadmium	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								2E-06					3E-02
		Exposure Point Total									6E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	1E+02	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.8E-06	5.7E-05	mg/kg-day	5.9E-04	mg/kg-day	9.7E-02
				Barium	6E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	4.0E-04
				Cadmium	4E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-03	mg/kg-day	1.9E-03
				Chromium III	3E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.5E+00	mg/kg-day	1.0E-04
				Copper	2E+02	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	3.0E-02	mg/kg-day	3.1E-03
				Lead												
				Manganese	1E+03	mg/kg	4.6E-05	mg/kg-day	N/A	N/A	N/A	5.4E-04	mg/kg-day	7.0E-02	mg/kg-day	7.7E-03
				Mercury	2E+00	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	1.0E-04	mg/kg-day	9.0E-03
				Nickel	2E+01	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	8.5E-06	mg/kg-day	2.0E-02	mg/kg-day	4.3E-04
				Thallium	4E-01	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	8.0E-05	mg/kg-day	2.6E-03
				Vanadium	3E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	9E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03
			Exp. Route Total								4E-06					1E-01
			Dermal													
				Arsenic	1E+02	mg/kg	8.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-06	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Cadmium	4E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.1E-03
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									5E-06					2E-01
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	6.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.9E-06	7.4E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01
				Barium	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	7.0E-02	mg/kg-day	8.3E-04
				Cadmium	1E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03
				Chromium III	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.5E+00	mg/kg-day	8.3E-05
				Copper	1E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-02	mg/kg-day	5.3E-03
				Lead												
				Manganese	4E+02	mg/kg	4.4E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	7.0E-02	mg/kg-day	7.4E-03
				Mercury	9E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02
				Nickel	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.0E-02	mg/kg-day	6.4E-04
				Vanadium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	1.0E-03	mg/kg-day	3.3E-02
				Zinc	3E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Arsenic	5E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.1E-02
				Cadmium	1E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	8.3E-08	mg/kg-day	2.5E-05	mg/kg-day	3.3E-03
			Exp. Route Total								2E-06					4E-02
		Exposure Point Total									6E-06					2E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.4E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-07	2.7E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.4E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.8E-08	2.8E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	4.0E-04	mg/kg-day	5.7E-03
				Arsenic	3E+01	mg/kg	3.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.7E-06	4.1E-05	mg/kg-day	5.9E-04	mg/kg-day	7.0E-02
				Barium	2E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	7.0E-02	mg/kg-day	4.3E-04
				Chromium III	1E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04
				Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.3E-03
				Lead												
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Mercury	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Nickel	2E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.4E-03
				Thallium	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	8.0E-05	mg/kg-day	3.0E-02
				Vanadium	2E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.0E-03	mg/kg-day	2.5E-02
				Zinc	5E+02	mg/kg	6.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-04	mg/kg-day	3.0E-01	mg/kg-day	2.6E-03
			Exp. Route Total								4E-06					2E-01
			Dermal													
				Benzo(a)anthracene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	8.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.1E-07	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-08	2.1E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	3.2E-05
				Arsenic	3E+01	mg/kg	5.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.9E-07	6.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
			Exp. Route Total								2E-06					2E-02
		Exposure Point Total									6E-06					2E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	2.7E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	1.1E-09	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04
				Benzo(a)anthracene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	5.0E-07	8.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.9E-06	7.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	1.2E-06	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	8.5E-07	1.4E-05	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	1.1E-06	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	8.2E-08	1.3E-05	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.3E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.7E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	4.7E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.4E-07	5.5E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	8.3E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04
				Aroclor 1260	7E-02	mg/kg	8.1E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-08	9.5E-08	mg/kg-day	2.0E-05	mg/kg-day	4.7E-03
				Antimony	2E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	4.0E-04	mg/kg-day	8.3E-03
				Arsenic	8E+01	mg/kg	9.8E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	7.5E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	5E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Chromium III	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04
				Copper	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.1E-02
				Lead												
				Manganese	4E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	7.0E-02	mg/kg-day	8.5E-03
				Mercury	3E+00	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	4.0E-06	mg/kg-day	1.0E-04	mg/kg-day	4.0E-02
				Nickel	3E+01	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.0E-03
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02
				Vanadium	5E+01	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	1.0E-03	mg/kg-day	7.4E-02
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	6.4E-03
			Exp. Route Total								2E-05					4E-01
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	5.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.6E-07	5.8E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	4.9E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-06	5.8E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	8.5E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	6.2E-07	9.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	8.2E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	6.0E-08	9.5E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	9.6E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.0E-07	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.4E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-07	4.0E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.5E-04
				Aroclor 1260	7E-02	mg/kg	6.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-08	7.4E-08	mg/kg-day	2.0E-05	mg/kg-day	3.7E-03
				Arsenic	8E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02
			Exp. Route Total								8E-06					8E-02
		Exposure Point Total									2E-05					5E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	4.0E-04	mg/kg-day	6.9E-03
				Arsenic	1E+02	mg/kg	1.8E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.4E-05	2.1E-04	mg/kg-day	5.9E-04	mg/kg-day	3.6E-01
				Barium	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	7.0E-02	mg/kg-day	8.3E-04
				Cadmium	3E+00	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	4.1E-03
				Chromium III	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.5E+00	mg/kg-day	8.3E-05
				Copper	5E+02	mg/kg	5.9E-05	mg/kg-day	N/A	N/A	N/A	6.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.3E-02
				Lead												
				Manganese	2E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-04	mg/kg-day	7.0E-02	mg/kg-day	4.3E-03
				Mercury	8E-01	mg/kg	9.9E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02
				Nickel	1E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	2.0E-02	mg/kg-day	1.0E-03
				Thallium	2E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	8.0E-05	mg/kg-day	3.5E-02
				Vanadium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-03	mg/kg-day	3.2E-02
				Zinc	2E+03	mg/kg	2.1E-04	mg/kg-day	N/A	N/A	N/A	2.4E-03	mg/kg-day	3.0E-01	mg/kg-day	8.1E-03
			Exp. Route Total								1E-05					5E-01
			Dermal													
				Arsenic	1E+02	mg/kg	3.1E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	4.6E-06	3.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.2E-01
				Cadmium	3E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.5E-05	mg/kg-day	9.2E-03
			Exp. Route Total								5E-06					1E-01
		Exposure Point Total									2E-05					6E-01
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.4E-03
				Arsenic	1E+02	mg/kg	4.9E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-06	5.7E-05	mg/kg-day	5.9E-04	mg/kg-day	9.7E-02
				Barium	1E+02	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	7.0E-02	mg/kg-day	7.4E-04
				Cadmium	1E+01	mg/kg	5.4E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	1.0E-03	mg/kg-day	6.3E-03
				Chromium III	9E+02	mg/kg	3.7E-05	mg/kg-day	N/A	N/A	N/A	4.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.9E-04
				Copper	6E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	3.0E-02	mg/kg-day	9.1E-03
				Lead												
				Manganese	4E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.6E-03
				Mercury	3E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-04	mg/kg-day	1.5E-02
				Nickel	4E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	9.4E-04
				Thallium	1E+00	mg/kg	4.9E-08	mg/kg-day	N/A	N/A	N/A	5.7E-07	mg/kg-day	8.0E-05	mg/kg-day	7.1E-03
				Vanadium	7E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-03	mg/kg-day	3.4E-02
				Zinc	2E+03	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	3.6E-03
			Exp. Route Total								4E-06					2E-01
			Dermal													
				Arsenic	1E+02	mg/kg	8.3E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	3.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.4E-02
			Exp. Route Total								1E-06					5E-02
		Exposure Point Total									5E-06					2E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	2E+00	mg/kg	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-07	3.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	3.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.2E-06	3.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	3.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-07	4.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-08	2.7E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-07	1.7E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.6E-04
				Antimony	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	4.0E-04	mg/kg-day	6.4E-03
				Arsenic	2E+01	mg/kg	3.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-06	3.5E-05	mg/kg-day	5.9E-04	mg/kg-day	6.0E-02
				Barium	4E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	6.2E-05	mg/kg-day	7.0E-02	mg/kg-day	8.8E-04
				Cadmium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Chromium III	1E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	1.5E+00	mg/kg-day	1.4E-04
				Copper	8E+01	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-02	mg/kg-day	3.8E-03
				Lead												
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02
				Mercury	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Nickel	1E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.0E-02	mg/kg-day	7.6E-04
				Thallium	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	8.0E-05	mg/kg-day	1.7E-02
				Vanadium	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-03	mg/kg-day	2.8E-02
				Zinc	6E+02	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	8.1E-04	mg/kg-day	3.0E-01	mg/kg-day	2.7E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Benzo(a)anthracene	2E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-07	2.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.6E-06	2.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-07	3.1E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.2E-08	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.8E-08	1.2E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Arsenic	2E+01	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.6E-07	5.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				Cadmium	2E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.1E-03
			Exp. Route Total								3E-06					3E-02
		Exposure Point Total									8E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	7.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.7E-09	9.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.8E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-08	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	7.1E-05
				Aroclor 1260	1E-01	mg/kg	1.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.7E-08	1.6E-07	mg/kg-day	2.0E-05	mg/kg-day	7.8E-03
				Antimony	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	4.0E-04	mg/kg-day	6.1E-03
				Arsenic	9E+01	mg/kg	1.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.1E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	5E+00	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	1.0E-03	mg/kg-day	7.4E-03
				Chromium III	2E+02	mg/kg	2.4E-05	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04
				Copper	2E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-02	mg/kg-day	8.1E-03
				Lead												
				Manganese	5E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.0E-02
				Mercury	7E-01	mg/kg	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
				Nickel	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03
				Vanadium	5E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	1.0E-03	mg/kg-day	7.0E-02
				Zinc	1E+03	mg/kg	1.7E-04	mg/kg-day	N/A	N/A	N/A	2.0E-03	mg/kg-day	3.0E-01	mg/kg-day	6.7E-03
			Exp. Route Total								9E-06					3E-01
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.4E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	5.7E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.2E-09	6.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-08	6.4E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Aroclor 1260	1E-01	mg/kg	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.1E-08	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	6.1E-03
				Arsenic	9E+01	mg/kg	1.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-06	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	6.9E-02
				Cadmium	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.7E-02
			Exp. Route Total								4E-06					9E-02
		Exposure Point Total									1E-05					4E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-07	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.9E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	2.0E-02	mg/kg-day	3.3E-05
				Antimony	9E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.1E-03
				Arsenic	6E+00	mg/kg	7.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.8E-07	8.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.5E-02
				Barium	1E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04
				Cadmium	2E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Chromium III	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06
				Copper	2E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	7.9E-04
				Lead												
				Manganese	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Nickel	7E+00	mg/kg	8.8E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.1E-04
				Thallium	5E-01	mg/kg	6.3E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	8.0E-05	mg/kg-day	9.2E-03
				Vanadium	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.0E-03	mg/kg-day	1.7E-02
				Zinc	2E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.3E-04
			Exp. Route Total								8E-07					5E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-08	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-09	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.8E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.1E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.4E-05
				Arsenic	6E+00	mg/kg	1.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.3E-04
			Exp. Route Total								4E-07					5E-03
		Exposure Point Total									1E-06					5E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	8.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-05	9.5E-05	mg/kg-day	3.0E-04	mg/kg-day	3.2E-01
				Cadmium	2E+00	mg/kg	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	1.0E-03
				Chromium VI	2E+02	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	3.0E-03	mg/kg-day	2.7E-02
				Copper	2E+02	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	8.1E-05	mg/kg-day	3.0E-02	mg/kg-day	2.7E-03
				Manganese	8E+02	mg/kg	3.4E-05	mg/kg-day	N/A	N/A	N/A	3.9E-04	mg/kg-day	7.0E-02	mg/kg-day	5.6E-03
				Mercury	2E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	1.0E-04	mg/kg-day	9.5E-03
				Vanadium	3E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Zinc	5E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	3.0E-01	mg/kg-day	8.3E-04
			Exp. Route Total								1E-05					4E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02
				Cadmium	2E+00	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									1E-05					4E-01
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02
				Cadmium	4E-01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	7.0E-04
				Chromium VI	2E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	3.0E-03	mg/kg-day	1.2E-02
				Copper	3E+01	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03
				Manganese	2E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	3.6E-04	mg/kg-day	7.0E-02	mg/kg-day	5.1E-03
				Mercury	1E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03
				Thallium	1E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.8E-02
				Vanadium	2E+01	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02
				Zinc	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.5E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	1E+01	mg/kg	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	4E-01	mg/kg	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.6E-03
			Exp. Route Total								4E-07					1E-02
		Exposure Point Total									3E-06					2E-01

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TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	9.7E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	1.1E-04	mg/kg-day	3.0E-04	mg/kg-day	3.8E-01
				Cadmium	7E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium VI	1E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-03	mg/kg-day	8.7E-02
				Copper	5E+01	mg/kg	8.2E-06	mg/kg-day	N/A	N/A	N/A	9.6E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Manganese	2E+02	mg/kg	3.7E-05	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	7.0E-02	mg/kg-day	6.1E-03
				Mercury	3E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02
				Vanadium	3E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02
				Zinc	2E+02	mg/kg	2.7E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								1E-05					6E-01
			Dermal													
				Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02
				Cadmium	7E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.9E-03
			Exp. Route Total								2E-06					7E-02
		Exposure Point Total									2E-05					6E-01
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	2.4E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-05	2.8E-04	mg/kg-day	3.0E-04	mg/kg-day	9.3E-01
				Cadmium	5E+00	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	1.0E-03	mg/kg-day	6.6E-03
				Chromium VI	4E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-03	mg/kg-day	1.9E-01
				Copper	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.2E-02
				Manganese	3E+03	mg/kg	3.5E-04	mg/kg-day	N/A	N/A	N/A	4.1E-03	mg/kg-day	7.0E-02	mg/kg-day	5.8E-02
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-04	mg/kg-day	4.8E-02
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	5.9E-02
				Vanadium	4E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	1.0E-03	mg/kg-day	5.4E-02
				Zinc	6E+02	mg/kg	7.2E-05	mg/kg-day	N/A	N/A	N/A	8.4E-04	mg/kg-day	3.0E-01	mg/kg-day	2.8E-03
			Exp. Route Total								4E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	4.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-06	4.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01
				Cadmium	5E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	2.5E-05	mg/kg-day	1.5E-02
			Exp. Route Total								6E-06					2E-01
		Exposure Point Total									4E-05					2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	5.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-06	6.5E-05	mg/kg-day	3.0E-04	mg/kg-day	2.2E-01
				Cadmium	1E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Chromium VI	1E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-03	mg/kg-day	5.7E-02
				Copper	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.1E-03
				Manganese	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	7.0E-02	mg/kg-day	1.7E-02
				Mercury	7E-01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	1.0E-04	mg/kg-day	9.8E-03
				Vanadium	3E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	1.0E-03	mg/kg-day	4.1E-02
				Zinc	4E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03
			Exp. Route Total								8E-06					4E-01
			Dermal													
				Arsenic	5E+01	mg/kg	9.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.7E-02
				Cadmium	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									1E-05					4E-01
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	5.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.2E-06	6.3E-05	mg/kg-day	3.0E-04	mg/kg-day	2.1E-01
				Cadmium	2E-01	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	1.0E-03	mg/kg-day	2.7E-04
				Chromium VI	1E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	6.7E-02
				Copper	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-02	mg/kg-day	4.8E-03
				Manganese	3E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.7E-04	mg/kg-day	7.0E-02	mg/kg-day	6.7E-03
				Mercury	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Thallium	2E+00	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	8.0E-05	mg/kg-day	3.3E-02
				Vanadium	3E+01	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02
				Zinc	2E+04	mg/kg	2.3E-03	mg/kg-day	N/A	N/A	N/A	2.7E-02	mg/kg-day	3.0E-01	mg/kg-day	9.0E-02
			Exp. Route Total								8E-06					5E-01
			Dermal													
				Arsenic	4E+01	mg/kg	9.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.6E-02
				Cadmium	2E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	6.0E-04
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									1E-05					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	9.5E-10	3.7E-09	mg/kg-day	1.3E-05	mg/kg-day	2.8E-04
				Arsenic	5E+01	ug/L	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-08	9.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	4E-01	ug/L	2.5E-10	mg/kg-day	N/A	N/A	N/A	8.6E-09	mg/kg-day	2.5E-05	mg/kg-day	3.4E-04
				Chromium VI	6E+01	ug/L	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	7.5E-05	mg/kg-day	3.1E-02
				Lead												
				Manganese	6E+02	ug/L	3.3E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.1E-03
				Mercury	6E-01	ug/L	3.5E-10	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.1E-05	mg/kg-day	5.8E-04
			Exp. Route Total								4E-08					4E-02
		Exposure Point Total									4E-08					4E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station DA	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station AM	Dermal													
		(Upper Reach 2)		Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station KF	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Chromium VI	2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04
			Exp. Route Total								2E-09					1E-03
		Exposure Point Total									2E-09					1E-03
		Station 08	Dermal													
		(Lower Reach 2)		Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Chromium VI	2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04
			Exp. Route Total								2E-09					1E-03
		Exposure Point Total									2E-09					1E-03

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 07/DP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station LP	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station AS	Dermal													
		(Reach 3)		Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station 06	Dermal													
		(Reach 4)		Chromium VI	4E+00	ug/L	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	7.5E-05	mg/kg-day	7.6E-04
				Lead												
				Manganese	5E+02	ug/L	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station 05	Dermal													
		(Reach 5)		Chloroform	1E+00	ug/L	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05
				Tetrachloroethene	2E+00	ug/L	4.6E-08	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-08	1.6E-06	mg/kg-day	1.0E-02	mg/kg-day	1.6E-04
				Chromium VI	9E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	7.5E-05	mg/kg-day	1.5E-04
				Manganese	3E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.6E-04
			Exp. Route Total								2E-08					1E-03
		Exposure Point Total									2E-08					1E-03

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 04	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04
		Station 03	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04
		Station 02	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	7.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.4E-04
				Chromium VI	2E+00	ug/L	9.8E-10	mg/kg-day	N/A	N/A	N/A	3.4E-08	mg/kg-day	3.0E-03	mg/kg-day	1.1E-05
				Lead												
				Manganese	7E+01	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.0E-02	mg/kg-day	2.3E-05
				Mercury	4E-02	ug/L	2.6E-11	mg/kg-day	N/A	N/A	N/A	9.1E-10	mg/kg-day	3.0E-04	mg/kg-day	3.0E-06
			Exp. Route Total								3E-09					3E-04
			Dermal													
				Arsenic	3E+00	ug/L	2.7E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-10	9.3E-09	mg/kg-day	3.0E-04	mg/kg-day	3.1E-05
				Chromium VI	2E+00	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	9.0E-09	mg/kg-day	7.5E-05	mg/kg-day	1.2E-04
				Lead												
				Manganese	7E+01	ug/L	6.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.8E-03	mg/kg-day	7.6E-05
				Mercury	4E-02	ug/L	3.4E-12	mg/kg-day	N/A	N/A	N/A	1.2E-10	mg/kg-day	2.1E-05	mg/kg-day	5.7E-06
			Exp. Route Total								4E-10					2E-04
		Exposure Point Total									3E-09					5E-04
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	5.1E-05	mg/kg-day	5.9E-04	mg/kg-day	8.6E-02
				Barium	6E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-03	mg/kg-day	5.2E-04
				Chromium III	3E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	1.5E+00	mg/kg-day	4.0E-05
				Copper	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Lead												
				Manganese	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	7.0E-02	mg/kg-day	8.4E-04
				Mercury	4E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	1.0E-04	mg/kg-day	1.1E-02
				Nickel	1E+01	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.7E-04
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Zinc	5E+02	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.8E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.3E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.7E-02
				Cadmium	2E+00	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	6.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-09	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.4E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	7.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.4E-10	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Antimony	9E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.4E-04
				Arsenic	6E+01	mg/kg	4.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-07	1.5E-05	mg/kg-day	5.9E-04	mg/kg-day	2.5E-02
				Barium	2E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	7.0E-02	mg/kg-day	5.4E-05
				Cadmium	6E-01	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	1.5E-04
				Chromium III	1E+02	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.6E-05
				Copper	6E+01	mg/kg	3.9E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.5E-04
				Lead												
				Manganese	1E+02	mg/kg	9.0E-07	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	7.0E-02	mg/kg-day	4.5E-04
				Mercury	6E-01	mg/kg	4.0E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	1.4E-03
				Nickel	7E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.0E-02	mg/kg-day	8.7E-05
				Thallium	5E-01	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03
				Vanadium	1E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Zinc	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	3.0E-01	mg/kg-day	1.7E-04
			Exp. Route Total								4E-07					3E-02
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.0E-09	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	8.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.4E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.9E-10	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Arsenic	6E+01	mg/kg	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-07	4.9E-06	mg/kg-day	3.0E-04	mg/kg-day	1.6E-02
				Cadmium	6E-01	mg/kg	4.9E-10	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.5E-05	mg/kg-day	6.8E-04
			Exp. Route Total								3E-07					2E-02
		Exposure Point Total									7E-07					5E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	1.9E-08	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	1.0E-08	6.6E-07	mg/kg-day	1.0E-02	mg/kg-day	6.6E-05
				Trichloroethene	7E-01	mg/kg	4.7E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.9E-09	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	5.5E-04
				Benzo(a)anthracene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	7.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.9E-09	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	9.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.1E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	3.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.2E-09	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	5.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.7E-09	mg/kg-day	N/A	N/A	N/A	9.5E-08	mg/kg-day	2.0E-02	mg/kg-day	4.7E-06
				Aroclor 1260	3E-02	mg/kg	2.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.0E-10	6.9E-09	mg/kg-day	2.0E-05	mg/kg-day	3.4E-04
				Antimony	7E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.1E-02
				Arsenic	8E+01	mg/kg	5.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.0E-07	1.8E-05	mg/kg-day	5.9E-04	mg/kg-day	3.1E-02
				Barium	5E+01	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.7E-04
				Cadmium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	1.0E-03	mg/kg-day	3.4E-04
				Chromium III	6E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.0E-05
				Copper	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	7.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.3E-04
				Lead												
				Manganese	1E+02	mg/kg	7.9E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	4.0E-04
				Mercury	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.3E-04
				Vanadium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	1.0E-03	mg/kg-day	9.6E-03
				Zinc	1E+02	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	3.0E-01	mg/kg-day	7.6E-05
			Exp. Route Total								4E-07					9E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-08	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.0E-10	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	4.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	6.9E-06
				Aroclor 1260	3E-02	mg/kg	3.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.1E-10	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.4E-04
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.6E-07	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Cadmium	1E+00	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03
			Exp. Route Total								3E-07					2E-02
		Exposure Point Total									7E-07					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	3.6E-10	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	1.4E-10	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	4.2E-05
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	6.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	5.0E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	6.1E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.5E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.4E-10	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-08	7.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.0E-02	mg/kg-day	5.2E-06
				Aroclor 1260	4E-02	mg/kg	2.8E-10	mg/kg-day	1.0E+00	$(mg/kg\text{-}day)^{-1}$	2.8E-10	9.8E-09	mg/kg-day	2.0E-05	mg/kg-day	4.9E-04
				Antimony	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02
				Arsenic	2E+03	mg/kg	1.3E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	1.0E-05	4.5E-04	mg/kg-day	5.9E-04	mg/kg-day	7.7E-01
				Barium	9E+01	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.1E-04
				Cadmium	1E+01	mg/kg	7.3E-08	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-03	mg/kg-day	2.6E-03
				Chromium III	1E+03	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04
				Copper	1E+03	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-02	mg/kg-day	9.4E-03
				Lead												
				Manganese	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Mercury	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	1.0E-04	mg/kg-day	6.5E-02
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	2.0E-02	mg/kg-day	4.8E-04
				Thallium	8E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	8.0E-05	mg/kg-day	2.3E-03
				Vanadium	1E+02	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	5.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.8E-03
				Chromium VI	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04
			Exp. Route Total								1E-05					9E-01
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	9.9E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.2E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.8E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	5.0E-10	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.2E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	5.1E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.7E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	7.5E-06
				Aroclor 1260	4E-02	mg/kg	4.4E-10	mg/kg-day	1.0E+00	$(mg/kg\text{-}day)^{-1}$	4.4E-10	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	7.7E-04
				Arsenic	2E+03	mg/kg	4.4E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.5E-06	1.5E-04	mg/kg-day	3.0E-04	mg/kg-day	5.1E-01
				Cadmium	1E+01	mg/kg	8.2E-09	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02
			Exp. Route Total								7E-06					5E-01
		Exposure Point Total									2E-05					1E+00

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	2.8E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.1E-10	1.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.3E-05
				Benzo(a)anthracene	1E-01	mg/kg	8.8E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-10	3.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.9E-11	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	3.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.3E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.9E-10	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.9E-06
				Aroclor 1260	1E-02	mg/kg	7.5E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.5E-11	2.6E-09	mg/kg-day	2.0E-05	mg/kg-day	1.3E-04
				Antimony	9E+00	mg/kg	6.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	4.0E-04	mg/kg-day	5.4E-03
				Arsenic	3E+02	mg/kg	1.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.4E-06	6.2E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01
				Barium	9E+01	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.2E-04
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03
				Chromium III	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	1.5E+00	mg/kg-day	1.5E-04
				Copper	6E+02	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.0E-03
				Lead												
				Manganese	1E+03	mg/kg	6.9E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03
				Mercury	3E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-04	mg/kg-day	7.0E-03
				Nickel	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	2.0E-02	mg/kg-day	4.1E-04
				Thallium	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.3E-03
				Vanadium	7E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	1E+03	mg/kg	7.4E-06	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.4E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	5.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-10	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	4.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.3E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.8E-06
				Aroclor 1260	1E-02	mg/kg	1.2E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.2E-10	4.1E-09	mg/kg-day	2.0E-05	mg/kg-day	2.0E-04
				Arsenic	3E+02	mg/kg	6.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.0E-07	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	7.0E-02
				Cadmium	6E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.8E-03
			Exp. Route Total								9E-07					8E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	4.0E-04	mg/kg-day	8.8E-03
				Arsenic	2E+02	mg/kg	4.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.6E-04	mg/kg-day	5.9E-04	mg/kg-day	2.7E-01
				Barium	1E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Cadmium	1E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	7.6E-03
				Chromium III	7E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	1.5E+00	mg/kg-day	3.5E-04
				Copper	4E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.8E-03
				Lead												
				Manganese	1E+03	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	8.7E-04	mg/kg-day	7.0E-02	mg/kg-day	1.2E-02
				Mercury	1E+00	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-04	mg/kg-day	9.7E-03
				Nickel	4E+01	mg/kg	7.4E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03
				Thallium	1E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.8E-03
				Vanadium	4E+01	mg/kg	9.1E-07	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-03	mg/kg-day	3.2E-02
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03
				Chromium VI	9E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.7E-07	mg/kg-day	3.0E-03	mg/kg-day	2.2E-04
			Exp. Route Total								4E-06					4E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-06	5.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.8E-01
				Cadmium	1E+01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	2.5E-05	mg/kg-day	3.4E-02
			Exp. Route Total								2E-06					2E-01
		Exposure Point Total									6E-06					6E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	7.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.6E-06	2.6E-04	mg/kg-day	5.9E-04	mg/kg-day	4.3E-01
				Barium	3E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Cadmium	7E+00	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Chromium III	5E+03	mg/kg	3.6E-05	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.4E-04
				Copper	4E+03	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	8.9E-04	mg/kg-day	3.0E-02	mg/kg-day	3.0E-02
				Lead												
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	7.0E-04
				Mercury	9E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01
				Nickel	8E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	9.5E-05
				Thallium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	8.0E-05	mg/kg-day	4.5E-03
				Vanadium	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03
				Zinc	1E+03	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-01	mg/kg-day	9.3E-04
				Chromium VI	7E+00	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-03	mg/kg-day	5.5E-04
			Exp. Route Total								6E-06					7E-01
			Dermal													
				Arsenic	1E+03	mg/kg	2.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-06	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01
				Cadmium	7E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03
			Exp. Route Total								4E-06					3E-01
		Exposure Point Total									9E-06					1E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	4.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	4.0E-04	mg/kg-day	3.6E-03
				Arsenic	6E+01	mg/kg	1.2E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	9.1E-07	4.1E-05	mg/kg-day	5.9E-04	mg/kg-day	7.0E-02
				Barium	6E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	7.0E-02	mg/kg-day	6.0E-04
				Cadmium	9E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	1.0E-03	mg/kg-day	6.6E-03
				Chromium III	3E+02	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04
				Copper	7E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.8E-02
				Lead												
				Manganese	7E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	4.9E-04	mg/kg-day	7.0E-02	mg/kg-day	7.0E-03
				Mercury	3E+00	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-04	mg/kg-day	2.1E-02
				Nickel	2E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.0E-02	mg/kg-day	7.3E-04
				Thallium	3E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	1.0E-03	mg/kg-day	5.7E-02
				Zinc	6E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03
			Exp. Route Total								9E-07					2E-01
			Dermal													
				Arsenic	6E+01	mg/kg	4.0E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.9E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.6E-02
				Cadmium	9E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02
			Exp. Route Total								6E-07					8E-02
		Exposure Point Total									2E-06					3E-01
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.2E-03
				Arsenic	4E+01	mg/kg	8.4E-07	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.5E-07	3.0E-05	mg/kg-day	5.9E-04	mg/kg-day	5.0E-02
				Barium	2E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	4E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Chromium III	1E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.5E+00	mg/kg-day	6.8E-05
				Copper	1E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	3.0E-02	mg/kg-day	2.3E-03
				Lead												
				Manganese	7E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	7.0E-02	mg/kg-day	7.3E-04
				Mercury	3E-01	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Nickel	1E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.6E-04
				Vanadium	3E+01	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02
				Zinc	3E+02	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.5E-04
			Exp. Route Total								6E-07					9E-02
			Dermal													
				Arsenic	4E+01	mg/kg	2.8E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	4.3E-07	9.9E-06	mg/kg-day	3.0E-04	mg/kg-day	3.3E-02
				Cadmium	4E+00	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.2E-02
			Exp. Route Total								4E-07					5E-02
		Exposure Point Total									1E-06					1E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	2E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.7E-03
				Arsenic	6E+02	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.3E-06	4.2E-04	mg/kg-day	5.9E-04	mg/kg-day	7.2E-01
				Barium	7E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04
				Cadmium	1E+01	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	9.3E-06	mg/kg-day	1.0E-03	mg/kg-day	9.3E-03
				Chromium III	5E+02	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	1.5E+00	mg/kg-day	2.2E-04
				Copper	4E+02	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	3.0E-02	mg/kg-day	8.9E-03
				Lead												
				Manganese	5E+02	mg/kg	9.4E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	4.7E-03
				Mercury	2E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Nickel	4E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03
				Thallium	1E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	6.9E-07	mg/kg-day	8.0E-05	mg/kg-day	8.6E-03
				Vanadium	6E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02
				Zinc	2E+03	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.0E-03
			Exp. Route Total								9E-06					8E-01
			Dermal													
				Arsenic	6E+02	mg/kg	4.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-06	1.4E-04	mg/kg-day	3.0E-04	mg/kg-day	4.7E-01
				Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.5E-05	mg/kg-day	4.2E-02
			Exp. Route Total								6E-06					5E-01
		Exposure Point Total									2E-05					1E+00
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	9.7E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-06	1.3E-04	mg/kg-day	5.9E-04	mg/kg-day	2.2E-01
				Barium	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.8E-04
				Cadmium	6E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	4.1E-03
				Chromium III	3E+02	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	1.5E+00	mg/kg-day	1.3E-04
				Copper	2E+02	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.8E-03
				Lead												
				Manganese	1E+03	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	9.8E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-02
				Mercury	1E+00	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	1.0E-04	mg/kg-day	8.6E-03
				Nickel	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	2.0E-02	mg/kg-day	2.7E-03
				Thallium	1E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	8.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.0E-02
				Vanadium	7E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02
				Zinc	3E+03	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	3.0E-01	mg/kg-day	7.3E-03
			Exp. Route Total								3E-06					3E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-06	4.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.4E-01
				Cadmium	6E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
			Exp. Route Total								2E-06					2E-01
		Exposure Point Total									5E-06					5E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.4E-03
				Arsenic	1E+02	mg/kg	2.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.2E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01
				Barium	5E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	7.0E-02	mg/kg-day	5.2E-04
				Cadmium	2E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Chromium III	5E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04
				Copper	2E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.6E-03
				Lead												
				Manganese	9E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	6.7E-05	mg/kg-day	7.0E-02	mg/kg-day	9.5E-04
				Mercury	3E-01	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-04	mg/kg-day	2.4E-03
				Nickel	3E+01	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.0E-02	mg/kg-day	9.8E-04
				Thallium	4E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	8.0E-05	mg/kg-day	3.7E-02
				Vanadium	7E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	1.0E-03	mg/kg-day	5.1E-02
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03
				Chromium VI	6E-01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.5E-04
			Exp. Route Total								2E-06					3E-01
			Dermal													
				Arsenic	1E+02	mg/kg	9.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	3.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Cadmium	2E+01	mg/kg	3.9E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.5E-02
			Exp. Route Total								1E-06					2E-01
		Exposure Point Total									4E-06					5E-01
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.5E-02
				Barium	6E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	5E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	7E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04
				Copper	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Lead												
				Manganese	3E+02	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	7.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	1.0E-04	mg/kg-day	3.1E-03
				Nickel	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.6E-04
				Vanadium	9E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	1.0E-03	mg/kg-day	2.2E-02
				Zinc	6E+02	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-01	mg/kg-day	4.9E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.2E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02
				Cadmium	5E+00	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	5.4E-10	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	6.9E-09	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.2E-09	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	6.7E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	4.9E-11	2.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	4.1E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	3.0E-10	1.4E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	8.8E-10	mg/kg-day	N/A	N/A	N/A	3.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Antimony	6E+00	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.5E-03
				Arsenic	2E+02	mg/kg	1.6E-06	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	1.2E-06	5.6E-05	mg/kg-day	5.9E-04	mg/kg-day	9.5E-02
				Barium	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium III	6E+02	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.5E+00	mg/kg-day	9.1E-05
				Copper	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.5E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Lead												
				Manganese	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	1.0E-04	mg/kg-day	8.1E-03
				Nickel	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.8E-04
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Zinc	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.4E-04
				Chromium VI	7E-01	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	3.0E-03	mg/kg-day	5.9E-05
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	7.9E-10	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	1.0E-08	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.7E-09	8.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	9.8E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	7.1E-11	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.9E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.3E-10	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.2E-06
				Arsenic	2E+02	mg/kg	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	8.1E-07	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02
				Cadmium	6E+00	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	6.0E-03
			Exp. Route Total								8E-07					7E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	8.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.0E-10	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	5.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.0E-04
				Arsenic	3E+01	mg/kg	2.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-07	8.3E-06	mg/kg-day	5.9E-04	mg/kg-day	1.4E-02
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Cadmium	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	6E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06
				Copper	6E+01	mg/kg	4.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.0E-04
				Lead												
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	4E-01	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	9.1E-08	mg/kg-day	1.0E-04	mg/kg-day	9.1E-04
				Nickel	1E+01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	8.0E-05	mg/kg-day	3.8E-03
				Vanadium	1E+01	mg/kg	9.3E-08	mg/kg-day	N/A	N/A	N/A	3.2E-06	mg/kg-day	1.0E-03	mg/kg-day	3.2E-03
				Zinc	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.9E-04
			Exp. Route Total								2E-07					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.4E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	5.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.6E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.5E-09	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.7E-10	4.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	7.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	8.7E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.3E-06
				Arsenic	3E+01	mg/kg	7.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	9.3E-03
				Cadmium	7E-01	mg/kg	5.2E-10	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	2.5E-05	mg/kg-day	7.2E-04
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	4.0E-04	mg/kg-day	1.2E-03
				Arsenic	1E+02	mg/kg	8.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.3E-07	2.9E-05	mg/kg-day	5.9E-04	mg/kg-day	4.9E-02
				Barium	6E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	2.0E-04
				Cadmium	4E+00	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	1.0E-03	mg/kg-day	9.3E-04
				Chromium III	3E+02	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.5E+00	mg/kg-day	5.1E-05
				Copper	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	3.0E-02	mg/kg-day	1.6E-03
				Lead												
				Manganese	1E+03	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.9E-03
				Mercury	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	1.0E-04	mg/kg-day	4.5E-03
				Nickel	2E+01	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.3E-03
				Vanadium	3E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	6.4E-06	mg/kg-day	1.0E-03	mg/kg-day	6.4E-03
				Zinc	9E+02	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.4E-04
			Exp. Route Total								6E-07					7E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-07	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Cadmium	4E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.1E-03
			Exp. Route Total								4E-07					4E-02
		Exposure Point Total									1E-06					1E-01
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	3.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.7E-07	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.1E-02
				Barium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Cadmium	1E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-03	mg/kg-day	2.5E-04
				Chromium III	9E+01	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.5E+00	mg/kg-day	1.4E-05
				Copper	1E+02	mg/kg	7.6E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	8.9E-04
				Lead												
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.6E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	9E-01	mg/kg	6.0E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	1.0E-04	mg/kg-day	2.1E-03
				Nickel	9E+00	mg/kg	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Vanadium	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	5.5E-03
				Zinc	3E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.3E-05	mg/kg-day	3.0E-01	mg/kg-day	2.8E-04
			Exp. Route Total								3E-07					3E-02
			Dermal													
				Arsenic	5E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	4.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.4E-02
				Cadmium	1E+00	mg/kg	7.9E-10	mg/kg-day	N/A	N/A	N/A	2.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.1E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					5E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	4.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	9.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.7E-10	3.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	6.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.6E-09	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Antimony	1E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.1E-04
				Arsenic	2E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.8E-08	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	7.0E-02	mg/kg-day	6.4E-05
				Chromium III	5E+01	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.6E-06
				Copper	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.8E-04
				Lead												
				Manganese	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	7.0E-02	mg/kg-day	5.5E-04
				Mercury	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	8.0E-05	mg/kg-day	4.3E-03
				Vanadium	1E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	4E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.3E-05	mg/kg-day	3.0E-01	mg/kg-day	2.8E-04
			Exp. Route Total								1E-07					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.5E-09	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	6.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.5E-08	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.3E-09	4.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.8E-10	4.7E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	9.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.7E-09	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	4.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.2E-06
				Arsenic	2E+01	mg/kg	4.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.4E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.0E-03
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									3E-07					2E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	1.5E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	6.0E-11	5.3E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05
				Benzo(a)anthracene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.7E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.7E-08	2.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	6.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.5E-09	2.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	7.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.4E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	9.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.1E-05
				Aroclor 1260	7E-02	mg/kg	4.5E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	4.5E-10	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	7.9E-04
				Antimony	2E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	4.0E-04	mg/kg-day	1.4E-03
				Arsenic	8E+01	mg/kg	5.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.2E-07	1.9E-05	mg/kg-day	5.9E-04	mg/kg-day	3.2E-02
				Barium	8E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	1.5E+00	mg/kg-day	3.9E-05
				Copper	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.9E-03
				Lead												
				Manganese	4E+02	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	9.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	3E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03
				Nickel	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	2.0E-02	mg/kg-day	3.3E-04
				Thallium	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	8.0E-05	mg/kg-day	6.6E-03
				Vanadium	5E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Zinc	1E+03	mg/kg	9.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								8E-07					7E-02
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-08	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.9E-08	3.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	9.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.6E-09	3.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.8E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Aroclor 1260	7E-02	mg/kg	7.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.1E-10	2.5E-08	mg/kg-day	2.0E-05	mg/kg-day	1.2E-03
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	6.4E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Cadmium	5E+00	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.5E-05	mg/kg-day	5.4E-03
			Exp. Route Total								9E-07					3E-02
		Exposure Point Total									2E-06					9E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	4.0E-04	mg/kg-day	1.1E-03
				Arsenic	1E+02	mg/kg	1.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.8E-07	3.6E-05	mg/kg-day	5.9E-04	mg/kg-day	6.0E-02
				Barium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Cadmium	3E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	6.9E-07	mg/kg-day	1.0E-03	mg/kg-day	6.9E-04
				Chromium III	9E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.5E+00	mg/kg-day	1.4E-05
				Copper	5E+02	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-02	mg/kg-day	3.8E-03
				Lead												
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	7.0E-02	mg/kg-day	7.1E-04
				Mercury	8E-01	mg/kg	5.5E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03
				Nickel	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.7E-04
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	8.0E-05	mg/kg-day	5.9E-03
				Vanadium	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.4E-06	mg/kg-day	1.0E-03	mg/kg-day	5.4E-03
				Zinc	2E+03	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	4.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.3E-03
			Exp. Route Total								8E-07					8E-02
			Dermal													
				Arsenic	1E+02	mg/kg	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.1E-07	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.0E-02
				Cadmium	3E+00	mg/kg	2.2E-09	mg/kg-day	N/A	N/A	N/A	7.7E-08	mg/kg-day	2.5E-05	mg/kg-day	3.1E-03
			Exp. Route Total								5E-07					4E-02
		Exposure Point Total									1E-06					1E-01
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	6.0E-07	mg/kg-day	4.0E-04	mg/kg-day	1.5E-03
				Arsenic	1E+02	mg/kg	7.9E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.1E-07	2.8E-05	mg/kg-day	5.9E-04	mg/kg-day	4.7E-02
				Barium	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	7.0E-02	mg/kg-day	3.5E-04
				Cadmium	1E+01	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	2.8E-03
				Chromium III	7E+02	mg/kg	5.1E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.2E-04
				Copper	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	4.0E-03
				Lead												
				Manganese	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	3E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	7.3E-07	mg/kg-day	1.0E-04	mg/kg-day	7.3E-03
				Nickel	4E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.0E-02	mg/kg-day	4.4E-04
				Thallium	1E+00	mg/kg	7.3E-09	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.2E-03
				Vanadium	7E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								6E-07					9E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-07	9.3E-06	mg/kg-day	3.0E-04	mg/kg-day	3.1E-02
				Cadmium	1E+01	mg/kg	9.1E-09	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	2.5E-05	mg/kg-day	1.3E-02
			Exp. Route Total								4E-07					4E-02
		Exposure Point Total									1E-06					1E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-08	8.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	8.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.6E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.1E-06
				Antimony	9E-01	mg/kg	6.4E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.6E-04
				Arsenic	8E+00	mg/kg	5.6E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.3E-08	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.3E-03
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Cadmium	2E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	5.2E-08	mg/kg-day	1.0E-03	mg/kg-day	5.2E-05
				Chromium III	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.5E+00	mg/kg-day	5.3E-06
				Copper	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.0E-04
				Lead												
				Manganese	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	9E-02	mg/kg	6.1E-10	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	1.0E-04	mg/kg-day	2.1E-04
				Nickel	1E+01	mg/kg	6.9E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Thallium	6E-01	mg/kg	4.2E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	8.0E-05	mg/kg-day	1.8E-03
				Vanadium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-03	mg/kg-day	4.5E-03
				Zinc	1E+02	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-01	mg/kg-day	9.6E-05
			Exp. Route Total								7E-08					1E-02
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.8E-10	8.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
				Arsenic	8E+00	mg/kg	1.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.8E-08	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.2E-03
				Cadmium	2E-01	mg/kg	1.7E-10	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								6E-08					2E-03
		Exposure Point Total									1E-07					1E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	6E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.3E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.0E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-10	8.2E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.4E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	8.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06
				Aroclor 1260	5E-02	mg/kg	3.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.4E-10	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	5.9E-04
				Antimony	8E-01	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	4.0E-04	mg/kg-day	4.7E-04
				Arsenic	3E+01	mg/kg	2.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.7E-07	7.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.3E-02
				Barium	4E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Cadmium	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-03	mg/kg-day	4.1E-04
				Chromium III	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	4.9E-04
				Lead												
				Manganese	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	7.0E-02	mg/kg-day	7.3E-04
				Mercury	3E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	6.3E-08	mg/kg-day	1.0E-04	mg/kg-day	6.3E-04
				Nickel	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.5E-04
				Vanadium	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	5.3E-03
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.1E-04
			Exp. Route Total								2E-07					2E-02
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	5.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.1E-09	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	4.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.4E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	5.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.3E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
				Aroclor 1260	5E-02	mg/kg	5.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	5.3E-10	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	9.3E-04
				Arsenic	3E+01	mg/kg	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.8E-03
				Cadmium	2E+00	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					3E-02

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	2E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.5E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.6E-09	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.2E-10	3.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.7E-11	4.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	8.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.9E-10	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06
				Antimony	9E-01	mg/kg	6.0E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	4.0E-04	mg/kg-day	5.2E-04
				Arsenic	6E+00	mg/kg	4.2E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-08	1.5E-06	mg/kg-day	5.9E-04	mg/kg-day	2.5E-03
				Barium	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	1.0E-03	mg/kg-day	3.9E-05
				Chromium III	8E+00	mg/kg	5.6E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.5E+00	mg/kg-day	1.3E-06
				Copper	1E+01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.3E-05
				Lead												
				Manganese	8E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	2.8E-04
				Nickel	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.6E-05
				Thallium	5E-01	mg/kg	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03
				Vanadium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Zinc	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.1E-05
			Exp. Route Total								4E-08					7E-03
			Dermal													
				Benzo(a)anthracene	2E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-08	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	5.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	6.1E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.7E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
				Arsenic	6E+00	mg/kg	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-08	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Cadmium	2E-01	mg/kg	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.4E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									8E-08					9E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	4.8E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01
				Cadmium	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	1.0E-03	mg/kg-day	5.1E-04
				Chromium VI	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-03	mg/kg-day	1.4E-02
				Copper	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-02	mg/kg-day	1.4E-03
				Manganese	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	7.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.0E-03
				Mercury	8E-01	mg/kg	5.5E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03
				Vanadium	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	1.0E-03	mg/kg-day	6.0E-03
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.2E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.9E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02
				Cadmium	2E+00	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									3E-06					2E-01
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-06	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02
				Cadmium	2E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-03	mg/kg-day	2.8E-04
				Chromium VI	2E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-03	mg/kg-day	8.7E-03
				Copper	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Manganese	2E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.9E-03
				Mercury	1E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03
				Thallium	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	8.0E-05	mg/kg-day	2.1E-02
				Vanadium	2E+01	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-03	mg/kg-day	3.4E-02
				Zinc	7E+01	mg/kg	8.8E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	3.0E-01	mg/kg-day	3.4E-04
			Exp. Route Total								2E-06					1E-01
			Dermal													
				Arsenic	1E+01	mg/kg	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.0E-03
				Cadmium	2E-01	mg/kg	4.4E-10	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.2E-04
			Exp. Route Total								1E-07					9E-03
		Exposure Point Total									2E-06					1E-01

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TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	7.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-05	8.5E-05	mg/kg-day	3.0E-04	mg/kg-day	2.8E-01
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04
				Chromium VI	1E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	6.5E-02
				Copper	5E+01	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Mercury	3E-01	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-04	mg/kg-day	4.1E-03
				Thallium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.9E-02
				Vanadium	3E+01	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	3.7E-05	mg/kg-day	1.0E-03	mg/kg-day	3.7E-02
				Zinc	2E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-01	mg/kg-day	7.9E-04
			Exp. Route Total								1E-05					4E-01
			Dermal													
				Arsenic	6E+01	mg/kg	4.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02
				Cadmium	7E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								6E-07					5E-02
		Exposure Point Total									1E-05					5E-01
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	4.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Cadmium	1E+00	mg/kg	9.2E-09	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	1.0E-03	mg/kg-day	3.2E-04
				Chromium VI	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-03	mg/kg-day	3.1E-02
				Copper	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Manganese	8E+02	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	7.0E-02	mg/kg-day	2.7E-03
				Mercury	1E+00	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Thallium	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.9E-03
				Vanadium	4E+01	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	1.0E-03	mg/kg-day	9.0E-03
				Zinc	6E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.7E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.7E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.2E-02
				Cadmium	1E+00	mg/kg	1.0E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.4E-03
			Exp. Route Total								7E-07					5E-02
		Exposure Point Total									3E-06					3E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.3.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.6E-02
				Cadmium	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	1.0E-03	mg/kg-day	3.3E-04
				Chromium VI	1E+02	mg/kg	8.1E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03
				Copper	1E+02	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-02	mg/kg-day	8.6E-04
				Manganese	8E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	7.0E-02	mg/kg-day	2.8E-03
				Mercury	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03
				Vanadium	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	1.0E-03	mg/kg-day	6.9E-03
				Zinc	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-01	mg/kg-day	3.1E-04
			Exp. Route Total								5E-07					6E-02
			Dermal													
				Arsenic	5E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	3.7E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Cadmium	1E+00	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									6E-07					7E-02
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	3.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.5E-02
				Cadmium	2E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	1.0E-03	mg/kg-day	4.5E-05
				Chromium VI	1E+02	mg/kg	9.5E-07	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	3.0E-03	mg/kg-day	1.1E-02
				Copper	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	8.0E-04
				Manganese	3E+02	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	1E+00	mg/kg	6.5E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	8.0E-05	mg/kg-day	5.6E-03
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-03	mg/kg-day	7.5E-03
				Zinc	2E+04	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	4.5E-03	mg/kg-day	3.0E-01	mg/kg-day	1.5E-02
			Exp. Route Total								5E-07					8E-02
			Dermal													
				Arsenic	4E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-07	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Cadmium	2E-01	mg/kg	1.4E-10	mg/kg-day	N/A	N/A	N/A	5.0E-09	mg/kg-day	2.5E-05	mg/kg-day	2.0E-04
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									6E-07					9E-02
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.7E-09	3.5E-09	mg/kg-day	1.3E-05	mg/kg-day	2.7E-04
				Arsenic	5E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	4.1E-03
				Cadmium	3E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03
				Chromium VI	6E+01	ug/L	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	7.5E-05	mg/kg-day	4.2E-02
				Lead												
				Manganese	6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.5E-03
				Mercury	6E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.1E-05	mg/kg-day	7.7E-04
			Exp. Route Total								2E-07					6E-02
		Exposure Point Total									2E-07					6E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	2.7E-09	3.5E-09	mg/kg-day	1.3E-05	mg/kg-day	2.7E-04
				Arsenic	5E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	4.1E-03
				Cadmium	3E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03
				Chromium VI	6E+01	ug/L	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	7.5E-05	mg/kg-day	4.2E-02
				Lead												
				Manganese	6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.5E-03
				Mercury	6E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.1E-05	mg/kg-day	7.7E-04
			Exp. Route Total								2E-07					6E-02
		Exposure Point Total									2E-07					6E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 13/TT-27 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station NT-1 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station NT-2 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station NT-3 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WW (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station JY (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03
			Exp. Route Total								2E-07					8E-02
		Exposure Point Total									2E-07					8E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.9E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	5.4E-09	6.9E-09	mg/kg-day	1.3E-05	mg/kg-day	5.3E-04
				Arsenic	5E+01	ug/L	2.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.2E-07	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	8.2E-03
				Cadmium	3E+00	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.3E-03
				Chromium VI	6E+01	ug/L	5.4E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	7.5E-05	mg/kg-day	8.3E-02
				Lead												
				Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	6E-01	ug/L	2.8E-09	mg/kg-day	N/A	N/A	N/A	3.2E-08	mg/kg-day	2.1E-05	mg/kg-day	1.5E-03
			Exp. Route Total								3E-07					1E-01
		Exposure Point Total									3E-07					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station TT-31 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Lead												
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04
			Exp. Route Total								2E-07					5E-02
		Exposure Point Total									2E-07					5E-02
		Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
				Lead												
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
			Exp. Route Total								6E-08					1E-02
		Exposure Point Total									6E-08					1E-02
		Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
				Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
			Exp. Route Total								3E-08					8E-03
		Exposure Point Total									3E-08					8E-03

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
				Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
				Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
			Exp. Route Total								3E-08					8E-03
		Exposure Point Total									3E-08					8E-03
		Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	2.9E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Lead												
				Manganese	5E+02	ug/L	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.8E-03	mg/kg-day	7.2E-03
			Exp. Route Total								N/A					1E-02
		Exposure Point Total									N/A					1E-02

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	4.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-02	mg/kg-day	5.2E-05
				Tetrachloroethene	2E+00	ug/L	5.9E-07	mg/kg-day	5.4E-01	(mg/kg-day)$^{-1}$	3.2E-07	6.9E-06	mg/kg-day	1.0E-02	mg/kg-day	6.9E-04
				Chromium VI	9E-01	ug/L	5.8E-09	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	7.5E-05	mg/kg-day	9.0E-04
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03
			Exp. Route Total								3E-07					6E-03
		Exposure Point Total									3E-07					6E-03
		Station 04 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03
		Station 03 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03
		Station 02 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Lead												
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04
			Exp. Route Total								3E-08					9E-03
		Exposure Point Total									3E-08					9E-03

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	9.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.7E-03
				Chromium VI	2E+00	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	3.0E-03	mg/kg-day	1.8E-04
				Lead												
				Manganese	7E+01	ug/L	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	7.0E-02	mg/kg-day	3.6E-04
				Mercury	4E-02	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	3.0E-04	mg/kg-day	4.7E-05
			Exp. Route Total								1E-07					4E-03
			Dermal													
				Arsenic	3E+00	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-08	1.5E-07	mg/kg-day	3.0E-04	mg/kg-day	4.9E-04
				Chromium VI	2E+00	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03
				Lead												
				Manganese	7E+01	ug/L	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	4E-02	ug/L	1.6E-10	mg/kg-day	N/A	N/A	N/A	1.9E-09	mg/kg-day	2.1E-05	mg/kg-day	9.0E-05
			Exp. Route Total								2E-08					4E-03
		Exposure Point Total									2E-07					8E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.3E-05	2.0E-04	mg/kg-day	5.9E-04	mg/kg-day	3.4E-01
				Barium	6E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	7.0E-02	mg/kg-day	7.6E-04
				Cadmium	2E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03
				Chromium III	3E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04
				Copper	3E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.6E-03
				Lead												
				Manganese	2E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03
				Mercury	4E+00	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	1.0E-04	mg/kg-day	4.3E-02
				Nickel	1E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.0E-02	mg/kg-day	6.7E-04
				Vanadium	3E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02
				Zinc	5E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03
			Exp. Route Total								1E-05					4E-01
			Dermal													
				Arsenic	2E+02	mg/kg	2.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.4E-06	3.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Cadmium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	2.5E-05	mg/kg-day	4.7E-03
			Exp. Route Total								4E-06					1E-01
		Exposure Point Total									2E-05					6E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-08	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	7.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.3E-07	8.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	9.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.5E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Antimony	1E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	7E+01	mg/kg	6.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.6E-06	7.0E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01
				Barium	2E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04
				Cadmium	1E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	1.0E-03	mg/kg-day	9.5E-04
				Chromium III	2E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	1.5E+00	mg/kg-day	1.4E-04
				Copper	6E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	6.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03
				Lead												
				Manganese	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	7.0E-02	mg/kg-day	2.3E-03
				Mercury	1E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02
				Nickel	1E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04
				Thallium	8E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-07	mg/kg-day	8.0E-05	mg/kg-day	9.6E-03
				Vanadium	1E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	3E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	7.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	5.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.9E-07	6.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.8E-09	7.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	9.0E-05
				Arsenic	7E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	3.9E-02
				Cadmium	1E+00	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	5.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.1E-03
			Exp. Route Total								2E-06					4E-02
		Exposure Point Total									7E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	3.4E-07	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	1.8E-07	3.9E-06	mg/kg-day	1.0E-02	mg/kg-day	3.9E-04
				Trichloroethene	7E-01	mg/kg	8.5E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	3.4E-08	9.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.3E-03
				Benzo(a)anthracene	3E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-08	4.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-07	2.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	5.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.9E-08	6.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.8E-09	7.7E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	5.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.9E-08	6.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	2.0E-02	mg/kg-day	3.5E-05
				Aroclor 1260	3E-02	mg/kg	3.5E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	7.1E-09	4.1E-08	mg/kg-day	2.0E-05	mg/kg-day	2.1E-03
				Antimony	3E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.7E-04	mg/kg-day	4.0E-04	mg/kg-day	1.2E+00
				Arsenic	8E+01	mg/kg	9.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.3E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01
				Barium	5E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.0E-03
				Cadmium	1E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Chromium III	6E+01	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	1.5E+00	mg/kg-day	6.2E-05
				Copper	3E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.4E-03
				Lead												
				Manganese	1E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	7.0E-02	mg/kg-day	2.4E-03
				Mercury	5E-01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03
				Nickel	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	8.1E-04
				Vanadium	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	1.0E-03	mg/kg-day	5.8E-02
				Zinc	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.5E-04
			Exp. Route Total								8E-06					1E+00
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-07	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	3.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-08	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	4.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.5E-09	5.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	3.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.9E-08	4.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-08	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.5E-05
				Aroclor 1260	3E-02	mg/kg	2.8E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	5.6E-09	3.2E-08	mg/kg-day	2.0E-05	mg/kg-day	1.6E-03
				Arsenic	8E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-06	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	6.2E-02
				Cadmium	1E+00	mg/kg	9.8E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.6E-03
			Exp. Route Total								3E-06					7E-02
		Exposure Point Total									1E-05					2E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 13/TT-27	Ingestion													
				Trichloroethene	4E-02	mg/kg	4.5E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	1.8E-09	5.3E-08	mg/kg-day	3.0E-04	mg/kg-day	1.8E-04
				Benzo(a)anthracene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.1E-07	1.8E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	3.1E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.3E-07	3.7E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.8E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	2.0E-08	3.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.8E-07	4.5E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	7.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Aroclor 1254	5E-02	mg/kg	5.5E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-08	6.4E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03
				Aroclor 1260	3E-01	mg/kg	3.8E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	7.6E-08	4.4E-07	mg/kg-day	2.0E-05	mg/kg-day	2.2E-02
				Antimony	6E+01	mg/kg	7.4E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	4.0E-04	mg/kg-day	2.2E-01
				Arsenic	4E+03	mg/kg	4.4E-04	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.4E-04	5.2E-03	mg/kg-day	5.9E-04	mg/kg-day	8.8E+00
				Barium	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.9E-03
				Cadmium	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Chromium III	6E+02	mg/kg	6.9E-05	mg/kg-day	N/A	N/A	N/A	8.0E-04	mg/kg-day	1.5E+00	mg/kg-day	5.3E-04
				Copper	2E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.3E-03	mg/kg-day	3.0E-02	mg/kg-day	7.8E-02
				Lead												
				Manganese	8E+02	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.5E-02
				Mercury	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01
				Nickel	3E+01	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.6E-05	mg/kg-day	2.0E-02	mg/kg-day	2.3E-03
				Thallium	4E+00	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	8.0E-05	mg/kg-day	6.6E-02
				Vanadium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.0E-03	mg/kg-day	1.2E-01
				Zinc	2E+03	mg/kg	2.7E-04	mg/kg-day	N/A	N/A	N/A	3.2E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
			Exp. Route Total								3E-04					1E+01
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	8.3E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	8.8E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.7E-07	2.7E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	1.5E-08	2.3E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	7.8E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	5.7E-08	9.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	8.8E-05
				Aroclor 1254	5E-02	mg/kg	4.3E-09	mg/kg-day	N/A	$(mg/kg\text{-}day)^{-1}$	N/A	5.0E-08	mg/kg-day	2.0E-05	mg/kg-day	2.5E-03
				Aroclor 1260	3E-01	mg/kg	3.0E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	5.9E-08	3.5E-07	mg/kg-day	2.0E-05	mg/kg-day	1.7E-02
				Arsenic	4E+03	mg/kg	7.5E-05	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-04	8.7E-04	mg/kg-day	3.0E-04	mg/kg-day	2.9E+00
				Cadmium	9E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	7.5E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02
			Exp. Route Total								1E-04					3E+00
		Exposure Point Total									5E-04					1E+01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Benzo(a)anthracene	6E-01	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-08	8.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-07	2.1E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	8.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.4E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03
				Antimony	3E+01	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	4.0E-04	mg/kg-day	1.2E-01
				Arsenic	2E+03	mg/kg	2.3E-04	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-04	2.7E-03	mg/kg-day	5.9E-04	mg/kg-day	4.6E+00
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03
				Cadmium	1E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Chromium III	1E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	1.5E+00	mg/kg-day	1.1E-03
				Copper	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	3.0E-02	mg/kg-day	5.7E-02
				Lead												
				Manganese	5E+02	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	7.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.0E-02
				Mercury	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	1.0E-04	mg/kg-day	3.9E-01
				Nickel	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	2.9E-03
				Thallium	8E-01	mg/kg	9.4E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	8.0E-05	mg/kg-day	1.4E-02
				Vanadium	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.0E-03	mg/kg-day	1.4E-01
				Zinc	2E+03	mg/kg	2.8E-04	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
				Chromium VI	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	3.0E-03	mg/kg-day	7.3E-04
			Exp. Route Total								2E-04					5E+00
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.6E-08	5.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.7E-08	1.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.7E-09	7.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05
				Aroclor 1260	6E-02	mg/kg	5.6E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03
				Arsenic	2E+03	mg/kg	3.9E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.9E-05	4.6E-04	mg/kg-day	3.0E-04	mg/kg-day	1.5E+00
				Cadmium	1E+01	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.4E-02
			Exp. Route Total								6E-05					2E+00
		Exposure Point Total									2E-04					7E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-1	Ingestion													
				Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Benzo(a)anthracene	5E-01	mg/kg	6.2E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.5E-08	7.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.8E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.3E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	8.1E-09	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03
				Antimony	1E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	4.0E-04	mg/kg-day	5.1E-02
				Arsenic	2E+03	mg/kg	3.0E-04	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.3E-04	3.5E-03	mg/kg-day	5.9E-04	mg/kg-day	6.0E+00
				Barium	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.2E-03
				Cadmium	9E+00	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Chromium III	2E+03	mg/kg	1.9E-04	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	1.5E+00	mg/kg-day	1.5E-03
				Copper	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.0E-02
				Lead												
				Manganese	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	7.0E-02	mg/kg-day	2.2E-02
				Mercury	5E+00	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	7.0E-06	mg/kg-day	1.0E-04	mg/kg-day	7.0E-02
				Nickel	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	2.9E-03
				Thallium	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	8.0E-05	mg/kg-day	2.0E-01
				Vanadium	7E+01	mg/kg	8.5E-06	mg/kg-day	N/A	N/A	N/A	9.9E-05	mg/kg-day	1.0E-03	mg/kg-day	9.9E-02
				Zinc	2E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.4E-03	mg/kg-day	3.0E-01	mg/kg-day	7.9E-03
				Chromium VI	2E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-03	mg/kg-day	9.5E-04
			Exp. Route Total								2E-04					6E+00
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.5E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.3E-08	5.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	7.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	5.7E-07	9.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	9.3E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E-01	mg/kg	8.1E-08	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	5.9E-09	9.4E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05
				Aroclor 1260	6E-02	mg/kg	5.6E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03
				Arsenic	2E+03	mg/kg	5.1E-05	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.6E-05	5.9E-04	mg/kg-day	3.0E-04	mg/kg-day	2.0E+00
				Cadmium	9E+00	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	2.5E-05	mg/kg-day	2.7E-02
			Exp. Route Total								8E-05					2E+00
		Exposure Point Total									3E-04					9E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-2	Ingestion													
				Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Benzo(a)anthracene	4E-01	mg/kg	5.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.8E-08	6.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-07	1.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.6E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-07	mg/kg-day	2.0E-02	mg/kg-day	3.9E-05
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03
				Antimony	2E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	4.0E-04	mg/kg-day	5.4E-02
				Arsenic	2E+03	mg/kg	2.2E-04	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.7E-04	2.5E-03	mg/kg-day	5.9E-04	mg/kg-day	4.3E+00
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03
				Cadmium	6E+00	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	1.0E-03	mg/kg-day	8.9E-03
				Chromium III	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.8E-04
				Copper	8E+02	mg/kg	9.2E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-02	mg/kg-day	3.6E-02
				Lead												
				Manganese	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	7.0E-02	mg/kg-day	1.8E-02
				Mercury	5E+00	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-04	mg/kg-day	7.5E-02
				Nickel	3E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	2.0E-02	mg/kg-day	2.4E-03
				Thallium	6E-01	mg/kg	6.7E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	8.0E-05	mg/kg-day	9.8E-03
				Vanadium	7E+01	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	1.0E-03	mg/kg-day	9.4E-02
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-01	mg/kg-day	6.0E-03
			Exp. Route Total								2E-04					5E+00
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	4.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.5E-08	1.2E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.8E-09	7.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.8E-05
				Aroclor 1260	6E-02	mg/kg	5.6E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03
				Arsenic	2E+03	mg/kg	3.6E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.4E-05	4.2E-04	mg/kg-day	3.0E-04	mg/kg-day	1.4E+00
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02
			Exp. Route Total								6E-05					1E+00
		Exposure Point Total									2E-04					6E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-3	Ingestion													
				Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Benzo(a)anthracene	6E-01	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.0E-08	8.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-07	2.1E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	8.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.4E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03
				Antimony	2E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	4.0E-04	mg/kg-day	5.4E-02
				Arsenic	5E+02	mg/kg	6.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.7E-05	7.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.2E+00
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03
				Cadmium	7E+00	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	1.0E-03	mg/kg-day	9.6E-03
				Chromium III	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	1.5E+00	mg/kg-day	9.9E-04
				Copper	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.0E-02
				Lead												
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	2.0E-02
				Mercury	5E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.2E-06	mg/kg-day	1.0E-04	mg/kg-day	7.2E-02
				Nickel	4E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	2.0E-02	mg/kg-day	2.6E-03
				Thallium	6E-01	mg/kg	6.9E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	8.0E-05	mg/kg-day	1.0E-02
				Vanadium	7E+01	mg/kg	8.3E-06	mg/kg-day	N/A	N/A	N/A	9.7E-05	mg/kg-day	1.0E-03	mg/kg-day	9.7E-02
				Zinc	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	3.0E-01	mg/kg-day	5.7E-03
			Exp. Route Total								5E-05					2E+00
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.6E-08	5.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.7E-08	1.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.7E-09	7.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	5.1E-08	mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05
				Aroclor 1260	6E-02	mg/kg	5.6E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03
				Arsenic	5E+02	mg/kg	1.0E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	1.2E-04	mg/kg-day	3.0E-04	mg/kg-day	4.0E-01
				Cadmium	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	5.4E-07	mg/kg-day	2.5E-05	mg/kg-day	2.1E-02
			Exp. Route Total								2E-05					4E-01
		Exposure Point Total									6E-05					2E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	5.1E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	2.1E-09	6.0E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04
				Benzo(a)anthracene	1E-01	mg/kg	1.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-08	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	3.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.6E-08	4.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.8E-09	2.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	5.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.1E-08	6.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05
				Aroclor 1260	1E-02	mg/kg	1.3E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.7E-09	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	7.8E-04
				Antimony	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	4.0E-04	mg/kg-day	3.3E-02
				Arsenic	3E+02	mg/kg	3.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.5E-05	3.7E-04	mg/kg-day	5.9E-04	mg/kg-day	6.3E-01
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03
				Cadmium	6E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	1.0E-03	mg/kg-day	9.1E-03
				Chromium III	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.8E-04
				Copper	6E+02	mg/kg	7.7E-05	mg/kg-day	N/A	N/A	N/A	8.9E-04	mg/kg-day	3.0E-02	mg/kg-day	3.0E-02
				Lead												
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	2.1E-02
				Mercury	3E+00	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	1.0E-04	mg/kg-day	4.2E-02
				Nickel	3E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.5E-03
				Thallium	4E-01	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	6.2E-07	mg/kg-day	8.0E-05	mg/kg-day	7.8E-03
				Vanadium	7E+01	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	1.0E-03	mg/kg-day	9.3E-02
				Zinc	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.2E-03
			Exp. Route Total								2E-05					9E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.4E-09	1.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	4.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.0E-08	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.3E-06
				Aroclor 1260	1E-02	mg/kg	1.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.1E-09	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	6.1E-04
				Arsenic	3E+02	mg/kg	5.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.1E-06	6.3E-05	mg/kg-day	3.0E-04	mg/kg-day	2.1E-01
				Cadmium	6E+00	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02
			Exp. Route Total								8E-06					2E-01
		Exposure Point Total									3E-05					1E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WW	Ingestion													
				Benzo(b)fluoranthene	3E-01	mg/kg	4.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-08	4.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	7.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.4E-09	8.7E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	6E+01	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	4.0E-04	mg/kg-day	2.0E-01
				Arsenic	5E+01	mg/kg	6.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.1E-06	7.8E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
				Barium	1E+03	mg/kg	1.8E-04	mg/kg-day	N/A	N/A	N/A	2.1E-03	mg/kg-day	7.0E-02	mg/kg-day	3.0E-02
				Cadmium	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02
				Chromium III	2E+04	mg/kg	1.9E-03	mg/kg-day	N/A	N/A	N/A	2.2E-02	mg/kg-day	1.5E+00	mg/kg-day	1.5E-02
				Copper	4E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.0E-02
				Lead												
				Manganese	4E+02	mg/kg	5.2E-05	mg/kg-day	N/A	N/A	N/A	6.1E-04	mg/kg-day	7.0E-02	mg/kg-day	8.6E-03
				Mercury	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Nickel	3E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.8E-03
				Thallium	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	8.0E-05	mg/kg-day	2.7E-02
				Vanadium	8E+01	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	1.0E-03	mg/kg-day	1.1E-01
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	6.4E-03
				Chromium VI	2E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-03	mg/kg-day	9.6E-03
			Exp. Route Total								5E-06					6E-01
			Dermal													
				Benzo(b)fluoranthene	3E-01	mg/kg	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-08	3.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	5.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.0E-09	6.3E-07	mg/kg-day	N/A	N/A	N/A
				Arsenic	5E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02
			Exp. Route Total								2E-06					7E-02
		Exposure Point Total									7E-06					7E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station JY	Ingestion													
				Aroclor 1254	1E+00	mg/kg	1.7E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	3.3E-07	1.9E-06	mg/kg-day	2.0E-05	mg/kg-day	9.7E-02
				Aroclor 1260	1E+00	mg/kg	1.8E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	3.6E-07	2.1E-06	mg/kg-day	2.0E-05	mg/kg-day	1.0E-01
				Antimony	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	4.0E-04	mg/kg-day	6.9E-02
				Arsenic	3E+02	mg/kg	3.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.7E-05	4.0E-04	mg/kg-day	5.9E-04	mg/kg-day	6.8E-01
				Barium	2E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	7.0E-02	mg/kg-day	3.7E-03
				Cadmium	1E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-03	mg/kg-day	2.1E-02
				Chromium III	1E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	1.5E+00	mg/kg-day	1.1E-03
				Copper	5E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	3.0E-02	mg/kg-day	2.4E-02
				Lead												
				Manganese	4E+02	mg/kg	4.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	7.0E-02	mg/kg-day	7.4E-03
				Mercury	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02
				Nickel	8E+01	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	2.0E-02	mg/kg-day	5.4E-03
				Thallium	4E+00	mg/kg	4.9E-07	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	8.0E-05	mg/kg-day	7.2E-02
				Vanadium	6E+01	mg/kg	7.8E-06	mg/kg-day	N/A	N/A	N/A	9.2E-05	mg/kg-day	1.0E-03	mg/kg-day	9.2E-02
				Zinc	2E+03	mg/kg	2.9E-04	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
				Chromium VI	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	3.0E-03	mg/kg-day	7.2E-04
			Exp. Route Total								3E-05					1E+00
			Dermal													
				Aroclor 1254	1E+00	mg/kg	1.3E-07	mg/kg-day	N/A	(mg/kg-day) $^{-1}$	N/A	1.5E-06	mg/kg-day	2.0E-05	mg/kg-day	7.6E-02
				Aroclor 1260	1E+00	mg/kg	1.4E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.8E-07	1.6E-06	mg/kg-day	2.0E-05	mg/kg-day	8.2E-02
				Arsenic	3E+02	mg/kg	5.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.7E-06	6.8E-05	mg/kg-day	3.0E-04	mg/kg-day	2.3E-01
				Cadmium	1E+01	mg/kg	9.9E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	2.5E-05	mg/kg-day	4.6E-02
			Exp. Route Total								9E-06					4E-01
		Exposure Point Total									4E-05					2E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	8.0E-07	mg/kg-day	N/A	N/A	N/A	9.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	2E+02	mg/kg	3.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-05	4.3E-04	mg/kg-day	5.9E-04	mg/kg-day	7.3E-01
				Barium	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.8E-03
				Cadmium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	1.0E-03	mg/kg-day	2.0E-02
				Chromium III	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	1.5E+00	mg/kg-day	9.2E-04
				Copper	4E+02	mg/kg	6.7E-05	mg/kg-day	N/A	N/A	N/A	7.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.6E-02
				Lead												
				Manganese	1E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.3E-03	mg/kg-day	7.0E-02	mg/kg-day	3.3E-02
				Mercury	1E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02
				Nickel	4E+01	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	6.9E-05	mg/kg-day	2.0E-02	mg/kg-day	3.4E-03
				Thallium	1E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	8.0E-05	mg/kg-day	2.6E-02
				Vanadium	4E+01	mg/kg	7.3E-06	mg/kg-day	N/A	N/A	N/A	8.5E-05	mg/kg-day	1.0E-03	mg/kg-day	8.5E-02
				Zinc	2E+03	mg/kg	3.3E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
				Chromium VI	9E-01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	3.0E-03	mg/kg-day	6.0E-04
			Exp. Route Total								3E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	6.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.3E-06	7.2E-05	mg/kg-day	3.0E-04	mg/kg-day	2.4E-01
				Cadmium	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.5E-05	mg/kg-day	4.6E-02
			Exp. Route Total								9E-06					3E-01
		Exposure Point Total									4E-05					1E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	4.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-05	5.1E-04	mg/kg-day	5.9E-04	mg/kg-day	8.7E-01
				Barium	3E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04
				Cadmium	7E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	1.0E-03	mg/kg-day	3.4E-03
				Chromium III	5E+03	mg/kg	2.2E-04	mg/kg-day	N/A	N/A	N/A	2.5E-03	mg/kg-day	1.5E+00	mg/kg-day	1.7E-03
				Copper	4E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-02	mg/kg-day	6.0E-02
				Lead												
				Manganese	2E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	9.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	9E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	1.0E-04	mg/kg-day	4.2E-01
				Nickel	8E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.9E-04
				Thallium	2E+00	mg/kg	6.1E-08	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	8.0E-05	mg/kg-day	8.9E-03
				Vanadium	2E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	1.0E-03	mg/kg-day	1.0E-02
				Zinc	1E+03	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03
				Chromium VI	7E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	3.0E-03	mg/kg-day	1.1E-03
			Exp. Route Total								3E-05					1E+00
			Dermal													
				Arsenic	1E+03	mg/kg	7.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-05	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01
				Cadmium	7E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03
			Exp. Route Total								1E-05					3E-01
		Exposure Point Total									4E-05					2E+00
		Station TT-31	Ingestion													
				Arsenic	3E+01	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-06	4.3E-05	mg/kg-day	5.9E-04	mg/kg-day	7.3E-02
				Barium	2E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.2E-03
				Cadmium	6E+00	mg/kg	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	1.0E-03	mg/kg-day	7.8E-03
				Chromium III	3E+02	mg/kg	3.6E-05	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	1.5E+00	mg/kg-day	2.8E-04
				Copper	2E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-02	mg/kg-day	8.6E-03
				Lead												
				Manganese	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	7.0E-02	mg/kg-day	2.5E-02
				Mercury	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02
				Nickel	4E+01	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	2.0E-02	mg/kg-day	2.5E-03
				Vanadium	6E+01	mg/kg	6.9E-06	mg/kg-day	N/A	N/A	N/A	8.0E-05	mg/kg-day	1.0E-03	mg/kg-day	8.0E-02
				Zinc	7E+02	mg/kg	8.3E-05	mg/kg-day	N/A	N/A	N/A	9.7E-04	mg/kg-day	3.0E-01	mg/kg-day	3.2E-03
			Exp. Route Total								3E-06					2E-01
			Dermal													
				Arsenic	3E+01	mg/kg	6.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.3E-07	7.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
			Exp. Route Total								9E-07					4E-02
		Exposure Point Total									4E-06					3E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	4.0E-04	mg/kg-day	9.7E-03
				Arsenic	6E+01	mg/kg	9.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.3E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01
				Barium	6E+01	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	7.0E-02	mg/kg-day	1.6E-03
				Cadmium	9E+00	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-03	mg/kg-day	1.8E-02
				Chromium III	3E+02	mg/kg	5.4E-05	mg/kg-day	N/A	N/A	N/A	6.3E-04	mg/kg-day	1.5E+00	mg/kg-day	4.2E-04
				Copper	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	3.0E-02	mg/kg-day	4.7E-02
				Lead												
				Manganese	7E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02
				Mercury	3E+00	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	1.0E-04	mg/kg-day	5.6E-02
				Nickel	2E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	6.0E-02
				Vanadium	8E+01	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.0E-03	mg/kg-day	1.5E-01
				Zinc	6E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-01	mg/kg-day	4.0E-03
			Exp. Route Total								7E-06					6E-01
			Dermal													
				Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-06	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	6.2E-02
				Cadmium	9E+00	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02
			Exp. Route Total								2E-06					1E-01
		Exposure Point Total									1E-05					7E-01
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Arsenic	4E+01	mg/kg	6.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.2E-06	7.9E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
				Barium	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Cadmium	4E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Chromium III	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.8E-04
				Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.2E-03
				Lead												
				Manganese	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
				Mercury	3E-01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.2E-07	mg/kg-day	1.0E-04	mg/kg-day	6.2E-03
				Nickel	1E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	9.5E-04
				Vanadium	3E+01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	1.0E-03	mg/kg-day	6.1E-02
				Zinc	3E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	6.0E-04	mg/kg-day	3.0E-01	mg/kg-day	2.0E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Arsenic	4E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Cadmium	4E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									7E-06					3E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	5E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	6E+02	mg/kg	9.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.5E-05	1.1E-03	mg/kg-day	5.9E-04	mg/kg-day	1.9E+00
				Barium	7E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03
				Cadmium	1E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.0E-03	mg/kg-day	2.5E-02
				Chromium III	8E+02	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	1.5E+00	mg/kg-day	9.7E-04
				Copper	4E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	3.0E-02	mg/kg-day	2.4E-02
				Lead												
				Manganese	5E+02	mg/kg	7.6E-05	mg/kg-day	N/A	N/A	N/A	8.8E-04	mg/kg-day	7.0E-02	mg/kg-day	1.3E-02
				Mercury	2E+00	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	1.0E-04	mg/kg-day	4.7E-02
				Nickel	4E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	2.0E-02	mg/kg-day	3.5E-03
				Thallium	1E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	6E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.0E-03	mg/kg-day	1.2E-01
				Zinc	2E+03	mg/kg	3.4E-04	mg/kg-day	N/A	N/A	N/A	4.0E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
			Exp. Route Total								7E-05					2E+00
			Dermal													
				Arsenic	6E+02	mg/kg	1.6E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-05	1.9E-04	mg/kg-day	3.0E-04	mg/kg-day	6.3E-01
				Cadmium	1E+01	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.6E-02
			Exp. Route Total								2E-05					7E-01
		Exposure Point Total									1E-04					3E+00
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02
				Arsenic	2E+02	mg/kg	3.0E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-05	3.5E-04	mg/kg-day	5.9E-04	mg/kg-day	5.8E-01
				Barium	8E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Cadmium	6E+00	mg/kg	9.3E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-03	mg/kg-day	1.1E-02
				Chromium III	3E+02	mg/kg	4.4E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	1.5E+00	mg/kg-day	3.4E-04
				Copper	2E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	3.0E-02	mg/kg-day	1.5E-02
				Lead												
				Manganese	1E+03	mg/kg	2.2E-04	mg/kg-day	N/A	N/A	N/A	2.6E-03	mg/kg-day	7.0E-02	mg/kg-day	3.7E-02
				Mercury	1E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-04	mg/kg-day	2.3E-02
				Nickel	8E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	2.0E-02	mg/kg-day	7.3E-03
				Thallium	5E+00	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	8.0E-05	mg/kg-day	1.3E-01
				Vanadium	7E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.0E-03	mg/kg-day	1.3E-01
				Zinc	3E+03	mg/kg	5.0E-04	mg/kg-day	N/A	N/A	N/A	5.8E-03	mg/kg-day	3.0E-01	mg/kg-day	1.9E-02
			Exp. Route Total								2E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	5.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.5E-06	5.8E-05	mg/kg-day	3.0E-04	mg/kg-day	1.9E-01
				Cadmium	6E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	2.5E-05	mg/kg-day	2.4E-02
			Exp. Route Total								7E-06					2E-01
		Exposure Point Total									3E-05					1E+00

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.2E-02
				Arsenic	1E+02	mg/kg	2.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-05	2.7E-04	mg/kg-day	5.9E-04	mg/kg-day	4.5E-01
				Barium	5E+01	mg/kg	8.3E-06	mg/kg-day	N/A	N/A	N/A	9.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Cadmium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	1.0E-03	mg/kg-day	3.3E-02
				Chromium III	5E+02	mg/kg	8.1E-05	mg/kg-day	N/A	N/A	N/A	9.4E-04	mg/kg-day	1.5E+00	mg/kg-day	6.3E-04
				Copper	2E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.5E-02
				Lead												
				Manganese	9E+01	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.5E-03
				Mercury	3E-01	mg/kg	5.5E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	1.0E-04	mg/kg-day	6.4E-03
				Nickel	3E+01	mg/kg	4.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	2.0E-02	mg/kg-day	2.6E-03
				Thallium	4E+00	mg/kg	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	8.0E-05	mg/kg-day	9.8E-02
				Vanadium	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.0E-03	mg/kg-day	1.4E-01
				Zinc	2E+03	mg/kg	3.4E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02
				Chromium VI	6E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	4.1E-04
			Exp. Route Total								2E-05					8E-01
			Dermal													
				Arsenic	1E+02	mg/kg	3.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-06	4.5E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Cadmium	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.5E-05	mg/kg-day	7.3E-02
			Exp. Route Total								6E-06					2E-01
		Exposure Point Total									2E-05					1E+00
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	8.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.6E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01
				Barium	6E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	7.0E-02	mg/kg-day	3.8E-04
				Cadmium	5E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Chromium III	7E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.3E-04
				Copper	4E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	3.0E-02	mg/kg-day	6.9E-03
				Lead												
				Manganese	6E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	3.1E-04	mg/kg-day	7.0E-02	mg/kg-day	4.4E-03
				Mercury	1E+00	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	1.0E-04	mg/kg-day	6.1E-03
				Nickel	2E+01	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.2E-04
				Vanadium	9E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	1.0E-03	mg/kg-day	4.3E-02
				Zinc	6E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-01	mg/kg-day	9.8E-04
			Exp. Route Total								7E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-06	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02
				Cadmium	5E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								2E-06					6E-02
		Exposure Point Total									9E-06					3E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	9.8E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.7E-08	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	1.2E-07	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	2.3E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	8.8E-10	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	7.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	5.3E-09	8.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.3E-06
				Antimony	6E+00	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	8.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02
				Arsenic	2E+02	mg/kg	2.9E-05	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	2.2E-05	3.4E-04	mg/kg-day	5.9E-04	mg/kg-day	5.7E-01
				Barium	6E+01	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	8.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Cadmium	6E+00	mg/kg	6.8E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.0E-03	mg/kg-day	8.0E-03
				Chromium III	2E+03	mg/kg	2.7E-04	mg/kg-day	N/A	N/A	N/A	3.1E-03	mg/kg-day	1.5E+00	mg/kg-day	2.1E-03
				Copper	4E+02	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	5.7E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02
				Lead												
				Manganese	8E+02	mg/kg	9.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.6E-02
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	1.0E-04	mg/kg-day	4.9E-02
				Nickel	2E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	2.0E-02	mg/kg-day	1.1E-03
				Vanadium	3E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02
				Zinc	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	3.0E-01	mg/kg-day	4.4E-03
				Chromium VI	3E+00	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	3.0E-03	mg/kg-day	1.4E-03
			Exp. Route Total								2E-05					7E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	7.1E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	9.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.7E-08	2.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	8.8E-09	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	6.4E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	3.9E-09	6.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.7E-06
				Arsenic	2E+02	mg/kg	4.8E-06	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	7.3E-06	5.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.9E-01
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
			Exp. Route Total								7E-06					2E-01
		Exposure Point Total									3E-05					9E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.3E-08	6.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	6.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.5E-07	7.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.1E-08	1.7E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Antimony	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.6E-03
				Arsenic	3E+01	mg/kg	4.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.3E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.4E-02
				Barium	3E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04
				Chromium III	6E+01	mg/kg	7.2E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	1.5E+00	mg/kg-day	5.6E-05
				Copper	6E+01	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	9.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.0E-03
				Lead												
				Manganese	3E+03	mg/kg	3.2E-04	mg/kg-day	N/A	N/A	N/A	3.8E-03	mg/kg-day	7.0E-02	mg/kg-day	5.4E-02
				Mercury	4E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03
				Nickel	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.0E-02	mg/kg-day	6.9E-04
				Thallium	1E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-03	mg/kg-day	1.9E-02
				Zinc	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								4E-06					2E-01
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-08	4.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	4.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.3E-07	5.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.6E-08	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.8E-09	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	7.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.2E-08	8.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	9.9E-05
				Arsenic	3E+01	mg/kg	7.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-06	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02
				Cadmium	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								2E-06					3E-02
		Exposure Point Total									6E-06					2E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				Arsenic	1E+02	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.8E-06	5.7E-05	mg/kg-day	5.9E-04	mg/kg-day	9.7E-02
				Barium	6E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	4.0E-04
				Cadmium	4E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-03	mg/kg-day	1.9E-03
				Chromium III	3E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.5E+00	mg/kg-day	1.0E-04
				Copper	2E+02	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	3.0E-02	mg/kg-day	3.1E-03
				Lead												
				Manganese	1E+03	mg/kg	4.6E-05	mg/kg-day	N/A	N/A	N/A	5.4E-04	mg/kg-day	7.0E-02	mg/kg-day	7.7E-03
				Mercury	2E+00	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	1.0E-04	mg/kg-day	9.0E-03
				Nickel	2E+01	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	8.5E-06	mg/kg-day	2.0E-02	mg/kg-day	4.3E-04
				Thallium	4E-01	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	8.0E-05	mg/kg-day	2.6E-03
				Vanadium	3E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	9E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03
			Exp. Route Total								4E-06					1E-01
			Dermal													
				Arsenic	1E+02	mg/kg	8.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-06	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Cadmium	4E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.1E-03
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									5E-06					2E-01
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	6.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.9E-06	7.4E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01
				Barium	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	7.0E-02	mg/kg-day	8.3E-04
				Cadmium	1E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03
				Chromium III	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.5E+00	mg/kg-day	8.3E-05
				Copper	1E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-02	mg/kg-day	5.3E-03
				Lead												
				Manganese	4E+02	mg/kg	4.4E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	7.0E-02	mg/kg-day	7.4E-03
				Mercury	9E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02
				Nickel	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.0E-02	mg/kg-day	6.4E-04
				Vanadium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	1.0E-03	mg/kg-day	3.3E-02
				Zinc	3E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Arsenic	5E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.1E-02
				Cadmium	1E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	8.3E-08	mg/kg-day	2.5E-05	mg/kg-day	3.3E-03
			Exp. Route Total								2E-06					4E-02
		Exposure Point Total									6E-06					2E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.4E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-07	2.7E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.4E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.8E-08	2.8E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	8.7E-07	mg/kg-day	2.0E-02	mg/kg-day	4.3E-05
				Antimony	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	4.0E-04	mg/kg-day	5.7E-03
				Arsenic	3E+01	mg/kg	3.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.7E-06	4.1E-05	mg/kg-day	5.9E-04	mg/kg-day	7.0E-02
				Barium	2E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	7.0E-02	mg/kg-day	4.3E-04
				Chromium III	1E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04
				Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.3E-03
				Lead												
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Mercury	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Nickel	2E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.4E-03
				Thallium	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	8.0E-05	mg/kg-day	3.0E-02
				Vanadium	2E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.0E-03	mg/kg-day	2.5E-02
				Zinc	5E+02	mg/kg	6.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-04	mg/kg-day	3.0E-01	mg/kg-day	2.6E-03
			Exp. Route Total								4E-06					2E-01
			Dermal													
				Benzo(a)anthracene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	8.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.1E-07	9.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-08	2.1E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.0E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	6E-01	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	3.2E-05
				Arsenic	3E+01	mg/kg	5.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.9E-07	6.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02
			Exp. Route Total								2E-06					2E-02
		Exposure Point Total									6E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	2.7E-09	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	1.1E-09	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04
				Benzo(a)anthracene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	5.0E-07	8.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.9E-06	7.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	1.2E-06	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	8.5E-07	1.4E-05	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	1.1E-06	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	8.2E-08	1.3E-05	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.3E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.7E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	4.7E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.4E-07	5.5E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	8.3E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04
				Aroclor 1260	7E-02	mg/kg	8.1E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-08	9.5E-08	mg/kg-day	2.0E-05	mg/kg-day	4.7E-03
				Antimony	2E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	4.0E-04	mg/kg-day	8.3E-03
				Arsenic	8E+01	mg/kg	9.8E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	7.5E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	5E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Chromium III	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04
				Copper	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.1E-02
				Lead												
				Manganese	4E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	7.0E-02	mg/kg-day	8.5E-03
				Mercury	3E+00	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	4.0E-06	mg/kg-day	1.0E-04	mg/kg-day	4.0E-02
				Nickel	3E+01	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.0E-03
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02
				Vanadium	5E+01	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	1.0E-03	mg/kg-day	7.4E-02
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	6.4E-03
			Exp. Route Total								2E-05					4E-01
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	5.0E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.6E-07	5.8E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	4.9E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-06	5.8E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	8.5E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	6.2E-07	9.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	8.2E-07	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	6.0E-08	9.5E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	9.6E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.0E-07	1.1E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.4E-07	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-07	4.0E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.5E-04
				Aroclor 1260	7E-02	mg/kg	6.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-08	7.4E-08	mg/kg-day	2.0E-05	mg/kg-day	3.7E-03
				Arsenic	8E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02
			Exp. Route Total								8E-06					8E-02
		Exposure Point Total									2E-05					5E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	4.0E-04	mg/kg-day	6.1E-03
				Arsenic	2E+02	mg/kg	1.8E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.4E-05	2.1E-04	mg/kg-day	5.9E-04	mg/kg-day	3.6E-01
				Barium	4E+01	mg/kg	4.5E-06	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	7.0E-02	mg/kg-day	7.6E-04
				Cadmium	3E+00	mg/kg	3.2E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	1.0E-03	mg/kg-day	3.8E-03
				Chromium III	8E+01	mg/kg	9.4E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	1.5E+00	mg/kg-day	7.3E-05
				Copper	4E+02	mg/kg	4.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	3.0E-02	mg/kg-day	1.7E-02
				Lead												
				Manganese	2E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	3.0E-04	mg/kg-day	7.0E-02	mg/kg-day	4.2E-03
				Mercury	7E-01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
				Nickel	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.0E-02	mg/kg-day	1.0E-03
				Thallium	2E+00	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	8.0E-05	mg/kg-day	3.4E-02
				Vanadium	2E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.0E-03	mg/kg-day	3.0E-02
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-01	mg/kg-day	6.2E-03
			Exp. Route Total								1E-05					5E-01
			Dermal													
				Arsenic	2E+02	mg/kg	3.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-06	3.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.2E-01
				Cadmium	3E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.5E-05	mg/kg-day	8.4E-03
			Exp. Route Total								5E-06					1E-01
		Exposure Point Total									2E-05					6E-01
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	4.0E-04	mg/kg-day	1.0E-02
				Arsenic	1E+02	mg/kg	1.5E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-05	1.7E-04	mg/kg-day	5.9E-04	mg/kg-day	2.9E-01
				Barium	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	7.0E-02	mg/kg-day	2.2E-03
				Cadmium	1E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-03	mg/kg-day	1.9E-02
				Chromium III	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.7E-04
				Copper	6E+02	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	8.2E-04	mg/kg-day	3.0E-02	mg/kg-day	2.7E-02
				Lead												
				Manganese	4E+02	mg/kg	4.7E-05	mg/kg-day	N/A	N/A	N/A	5.5E-04	mg/kg-day	7.0E-02	mg/kg-day	7.8E-03
				Mercury	3E+00	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	1.0E-04	mg/kg-day	4.4E-02
				Nickel	4E+01	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	2.0E-02	mg/kg-day	2.8E-03
				Thallium	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	8.0E-05	mg/kg-day	2.1E-02
				Vanadium	7E+01	mg/kg	8.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.0E-03	mg/kg-day	1.0E-01
				Zinc	2E+03	mg/kg	2.8E-04	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
			Exp. Route Total								1E-05					5E-01
			Dermal													
				Arsenic	1E+02	mg/kg	2.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-06	2.9E-05	mg/kg-day	3.0E-04	mg/kg-day	9.7E-02
				Cadmium	1E+01	mg/kg	9.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.5E-05	mg/kg-day	4.2E-02
			Exp. Route Total								4E-06					1E-01
		Exposure Point Total									2E-05					7E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	2E+00	mg/kg	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-07	3.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	3.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.2E-06	3.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	3.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.7E-07	4.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-08	2.7E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-07	1.7E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.6E-04
				Antimony	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	4.0E-04	mg/kg-day	6.4E-03
				Arsenic	2E+01	mg/kg	3.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.3E-06	3.5E-05	mg/kg-day	5.9E-04	mg/kg-day	6.0E-02
				Barium	4E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	6.2E-05	mg/kg-day	7.0E-02	mg/kg-day	8.8E-04
				Cadmium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Chromium III	1E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	1.5E+00	mg/kg-day	1.4E-04
				Copper	8E+01	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-02	mg/kg-day	3.8E-03
				Lead												
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02
				Mercury	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Nickel	1E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.0E-02	mg/kg-day	7.6E-04
				Thallium	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	8.0E-05	mg/kg-day	1.7E-02
				Vanadium	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-03	mg/kg-day	2.8E-02
				Zinc	6E+02	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	8.1E-04	mg/kg-day	3.0E-01	mg/kg-day	2.7E-03
			Exp. Route Total								5E-06					2E-01
			Dermal													
				Benzo(a)anthracene	2E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-07	2.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E+00	mg/kg	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.6E-06	2.6E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-07	3.1E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.2E-08	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.8E-08	1.2E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Arsenic	2E+01	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.6E-07	5.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				Cadmium	2E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.1E-03
			Exp. Route Total								3E-06					3E-02
		Exposure Point Total									8E-06					2E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	7.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.7E-09	9.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.8E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.5E-08	8.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	7.1E-05
				Aroclor 1260	1E-01	mg/kg	1.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.7E-08	1.6E-07	mg/kg-day	2.0E-05	mg/kg-day	7.8E-03
				Antimony	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	4.0E-04	mg/kg-day	6.1E-03
				Arsenic	9E+01	mg/kg	1.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.1E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	5E+00	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	1.0E-03	mg/kg-day	7.4E-03
				Chromium III	2E+02	mg/kg	2.4E-05	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04
				Copper	2E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-02	mg/kg-day	8.1E-03
				Lead												
				Manganese	5E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.0E-02
				Mercury	7E-01	mg/kg	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
				Nickel	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03
				Vanadium	5E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	1.0E-03	mg/kg-day	7.0E-02
				Zinc	1E+03	mg/kg	1.7E-04	mg/kg-day	N/A	N/A	N/A	2.0E-03	mg/kg-day	3.0E-01	mg/kg-day	6.7E-03
			Exp. Route Total								9E-06					3E-01
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.4E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.1E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	5.7E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.2E-09	6.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-08	6.4E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05
				Aroclor 1260	1E-01	mg/kg	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.1E-08	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	6.1E-03
				Arsenic	9E+01	mg/kg	1.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-06	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	6.9E-02
				Cadmium	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.7E-02
			Exp. Route Total								4E-06					9E-02
		Exposure Point Total									1E-05					4E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.9E-07	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.9E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	2.0E-02	mg/kg-day	3.3E-05
				Antimony	9E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.1E-03
				Arsenic	6E+00	mg/kg	7.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.8E-07	8.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.5E-02
				Barium	1E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04
				Cadmium	2E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04
				Chromium III	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06
				Copper	2E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	7.9E-04
				Lead												
				Manganese	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03
				Nickel	7E+00	mg/kg	8.8E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.1E-04
				Thallium	5E-01	mg/kg	6.3E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	8.0E-05	mg/kg-day	9.2E-03
				Vanadium	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.0E-03	mg/kg-day	1.7E-02
				Zinc	2E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.3E-04
			Exp. Route Total								8E-07					5E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-08	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-09	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.8E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.1E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.4E-05
				Arsenic	6E+00	mg/kg	1.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
				Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.3E-04
			Exp. Route Total								4E-07					5E-03
		Exposure Point Total									1E-06					5E-02
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.6E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-05	1.9E-04	mg/kg-day	3.0E-04	mg/kg-day	6.4E-01
				Cadmium	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Chromium VI	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-03	mg/kg-day	5.4E-02
				Copper	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-02	mg/kg-day	5.4E-03
				Manganese	8E+02	mg/kg	6.8E-05	mg/kg-day	N/A	N/A	N/A	7.9E-04	mg/kg-day	7.0E-02	mg/kg-day	1.1E-02
				Mercury	2E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-04	mg/kg-day	1.9E-02
				Vanadium	3E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	1.0E-03	mg/kg-day	2.4E-02
				Zinc	5E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								2E-05					8E-01
			Dermal													
				Arsenic	2E+02	mg/kg	2.7E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-06	3.2E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Cadmium	2E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03
			Exp. Route Total								4E-06					1E-01
		Exposure Point Total									3E-05					9E-01
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02
				Cadmium	4E-01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	7.0E-04
				Chromium VI	2E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	3.0E-03	mg/kg-day	1.2E-02
				Copper	3E+01	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03
				Manganese	2E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	3.6E-04	mg/kg-day	7.0E-02	mg/kg-day	5.1E-03
				Mercury	1E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03
				Thallium	1E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.8E-02
				Vanadium	2E+01	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02
				Zinc	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.5E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	1E+01	mg/kg	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	4E-01	mg/kg	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.6E-03
			Exp. Route Total								4E-07					1E-02
		Exposure Point Total									3E-06					2E-01

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TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	9.7E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-05	1.1E-04	mg/kg-day	3.0E-04	mg/kg-day	3.8E-01
				Cadmium	7E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium VI	1E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-03	mg/kg-day	8.7E-02
				Copper	5E+01	mg/kg	8.2E-06	mg/kg-day	N/A	N/A	N/A	9.6E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Manganese	2E+02	mg/kg	3.7E-05	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	7.0E-02	mg/kg-day	6.1E-03
				Mercury	3E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02
				Vanadium	3E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02
				Zinc	2E+02	mg/kg	2.7E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								1E-05					6E-01
			Dermal													
				Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02
				Cadmium	7E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.9E-03
			Exp. Route Total								2E-06					7E-02
		Exposure Point Total									2E-05					6E-01
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	2.4E-05	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.6E-05	2.8E-04	mg/kg-day	3.0E-04	mg/kg-day	9.3E-01
				Cadmium	5E+00	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	1.0E-03	mg/kg-day	6.6E-03
				Chromium VI	4E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-03	mg/kg-day	1.9E-01
				Copper	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.2E-02
				Manganese	3E+03	mg/kg	3.5E-04	mg/kg-day	N/A	N/A	N/A	4.1E-03	mg/kg-day	7.0E-02	mg/kg-day	5.8E-02
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-04	mg/kg-day	4.8E-02
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	5.9E-02
				Vanadium	4E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	1.0E-03	mg/kg-day	5.4E-02
				Zinc	6E+02	mg/kg	7.2E-05	mg/kg-day	N/A	N/A	N/A	8.4E-04	mg/kg-day	3.0E-01	mg/kg-day	2.8E-03
			Exp. Route Total								4E-05					1E+00
			Dermal													
				Arsenic	2E+02	mg/kg	4.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-06	4.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01
				Cadmium	5E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	2.5E-05	mg/kg-day	1.5E-02
			Exp. Route Total								6E-06					2E-01
		Exposure Point Total									4E-05					2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	5.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.4E-06	6.5E-05	mg/kg-day	3.0E-04	mg/kg-day	2.2E-01
				Cadmium	1E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Chromium VI	1E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-03	mg/kg-day	5.7E-02
				Copper	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.1E-03
				Manganese	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	7.0E-02	mg/kg-day	1.7E-02
				Mercury	7E-01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	1.0E-04	mg/kg-day	9.8E-03
				Vanadium	3E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	1.0E-03	mg/kg-day	4.1E-02
				Zinc	4E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03
			Exp. Route Total								8E-06					4E-01
			Dermal													
				Arsenic	5E+01	mg/kg	9.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.7E-02
				Cadmium	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									1E-05					4E-01
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	5.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.2E-06	6.3E-05	mg/kg-day	3.0E-04	mg/kg-day	2.1E-01
				Cadmium	2E-01	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	2.7E-07	mg/kg-day	1.0E-03	mg/kg-day	2.7E-04
				Chromium VI	1E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	6.7E-02
				Copper	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-02	mg/kg-day	4.8E-03
				Manganese	3E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.7E-04	mg/kg-day	7.0E-02	mg/kg-day	6.7E-03
				Mercury	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Thallium	2E+00	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	8.0E-05	mg/kg-day	3.3E-02
				Vanadium	3E+01	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02
				Zinc	2E+04	mg/kg	2.3E-03	mg/kg-day	N/A	N/A	N/A	2.7E-02	mg/kg-day	3.0E-01	mg/kg-day	9.0E-02
			Exp. Route Total								8E-06					5E-01
			Dermal													
				Arsenic	4E+01	mg/kg	9.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.6E-02
				Cadmium	2E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	6.0E-04
			Exp. Route Total								1E-06					4E-02
		Exposure Point Total									1E-05					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					
											N/A					N/A
																Total of Receptor Hazards Across All Media
																N/A

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day)$^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day)$^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day)$^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 13/TT-27 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station NT-1 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station NT-2 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station NT-3 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station WW (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station JY (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
			Exp. Route Total								1E-08					1E-02
		Exposure Point Total									1E-08					1E-02
		Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	9.5E-10	3.7E-09	mg/kg-day	1.3E-05	mg/kg-day	2.8E-04
				Arsenic	5E+01	ug/L	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-08	9.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	4E-01	ug/L	2.5E-10	mg/kg-day	N/A	N/A	N/A	8.6E-09	mg/kg-day	2.5E-05	mg/kg-day	3.4E-04
				Chromium VI	6E+01	ug/L	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	7.5E-05	mg/kg-day	3.1E-02
				Lead												
				Manganese	6E+02	ug/L	3.3E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.1E-03
				Mercury	6E-01	ug/L	3.5E-10	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.1E-05	mg/kg-day	5.8E-04
			Exp. Route Total								4E-08					4E-02
		Exposure Point Total									4E-08					4E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station TT-31 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Lead												
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								3E-08					2E-02
		Exposure Point Total									3E-08					2E-02
		Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Lead												
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
			Exp. Route Total								1E-08					5E-03
		Exposure Point Total									1E-08					5E-03
		Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Chromium VI	2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04
			Exp. Route Total								2E-09					1E-03
		Exposure Point Total									2E-09					1E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Chromium VI	2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04
			Exp. Route Total								2E-09					1E-03
		Exposure Point Total									2E-09					1E-03
		Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04
				Lead												
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	7.5E-05	mg/kg-day	7.6E-04
				Lead												
				Manganese	5E+02	ug/L	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
			Exp. Route Total								N/A					2E-03
		Exposure Point Total									N/A					2E-03

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 05	Dermal													
		(Reach 5)		Chloroform	1E+00	ug/L	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05
				Tetrachloroethene	2E+00	ug/L	4.6E-08	mg/kg-day	5.4E-01	$(mg/kg-day)^{-1}$	2.5E-08	1.6E-06	mg/kg-day	1.0E-02	mg/kg-day	1.6E-04
				Chromium VI	9E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	7.5E-05	mg/kg-day	1.5E-04
				Manganese	3E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.6E-04
			Exp. Route Total								2E-08					1E-03
		Exposure Point Total									2E-08					1E-03
		Station 04	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	$(mg/kg-day)^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04
		Station 03	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	$(mg/kg-day)^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04
		Station 02	Dermal													
		(Upper Reach 6)		Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	$(mg/kg-day)^{-1}$	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
			Exp. Route Total								1E-09					9E-04
		Exposure Point Total									1E-09					9E-04

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion													
				Arsenic	3E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.0E-09	7.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.4E-04
				Chromium VI	2E+00	ug/L	9.8E-10	mg/kg-day	N/A	N/A	N/A	3.4E-08	mg/kg-day	3.0E-03	mg/kg-day	1.1E-05
				Lead												
				Manganese	7E+01	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.0E-02	mg/kg-day	2.3E-05
				Mercury	4E-02	ug/L	2.6E-11	mg/kg-day	N/A	N/A	N/A	9.1E-10	mg/kg-day	3.0E-04	mg/kg-day	3.0E-06
			Exp. Route Total								3E-09					3E-04
			Dermal													
				Arsenic	3E+00	ug/L	2.7E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-10	9.3E-09	mg/kg-day	3.0E-04	mg/kg-day	3.1E-05
				Chromium VI	2E+00	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	9.0E-09	mg/kg-day	7.5E-05	mg/kg-day	1.2E-04
				Lead												
				Manganese	7E+01	ug/L	6.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.8E-03	mg/kg-day	7.6E-05
				Mercury	4E-02	ug/L	3.4E-12	mg/kg-day	N/A	N/A	N/A	1.2E-10	mg/kg-day	2.1E-05	mg/kg-day	5.7E-06
			Exp. Route Total								4E-10					2E-04
		Exposure Point Total									3E-09					5E-04
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	5.1E-05	mg/kg-day	5.9E-04	mg/kg-day	8.6E-02
				Barium	6E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-03	mg/kg-day	5.2E-04
				Chromium III	3E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	1.5E+00	mg/kg-day	4.0E-05
				Copper	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Lead												
				Manganese	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	7.0E-02	mg/kg-day	8.4E-04
				Mercury	4E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	1.0E-04	mg/kg-day	1.1E-02
				Nickel	1E+01	mg/kg	9.5E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.7E-04
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Zinc	5E+02	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.8E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.3E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.7E-02
				Cadmium	2E+00	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion													
				Benzo(a)anthracene	1E+00	mg/kg	6.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.8E-09	2.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.4E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	7.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.4E-10	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Antimony	9E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.4E-04
				Arsenic	6E+01	mg/kg	4.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-07	1.5E-05	mg/kg-day	5.9E-04	mg/kg-day	2.5E-02
				Barium	2E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	7.0E-02	mg/kg-day	5.4E-05
				Cadmium	6E-01	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	1.5E-04
				Chromium III	1E+02	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.6E-05
				Copper	6E+01	mg/kg	3.9E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.5E-04
				Lead												
				Manganese	1E+02	mg/kg	9.0E-07	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	7.0E-02	mg/kg-day	4.5E-04
				Mercury	6E-01	mg/kg	4.0E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	1.4E-03
				Nickel	7E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.0E-02	mg/kg-day	8.7E-05
				Thallium	5E-01	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03
				Vanadium	1E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Zinc	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	3.0E-01	mg/kg-day	1.7E-04
			Exp. Route Total								4E-07					3E-02
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.0E-09	3.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	8.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.4E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	7.9E-10	3.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Arsenic	6E+01	mg/kg	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-07	4.9E-06	mg/kg-day	3.0E-04	mg/kg-day	1.6E-02
				Cadmium	6E-01	mg/kg	4.9E-10	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.5E-05	mg/kg-day	6.8E-04
			Exp. Route Total								3E-07					2E-02
		Exposure Point Total									7E-07					5E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion													
				Tetrachloroethene	3E+00	mg/kg	1.9E-08	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	1.0E-08	6.6E-07	mg/kg-day	1.0E-02	mg/kg-day	6.6E-05
				Trichloroethene	7E-01	mg/kg	4.7E-09	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.9E-09	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	5.5E-04
				Benzo(a)anthracene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.5E-09	7.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.9E-09	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	9.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.1E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	3.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.2E-09	1.0E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.1E-09	5.2E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.7E-09	mg/kg-day	N/A	N/A	N/A	9.5E-08	mg/kg-day	2.0E-02	mg/kg-day	4.7E-06
				Aroclor 1260	3E-02	mg/kg	2.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.0E-10	6.9E-09	mg/kg-day	2.0E-05	mg/kg-day	3.4E-04
				Antimony	7E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.1E-02
				Arsenic	8E+01	mg/kg	5.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.0E-07	1.8E-05	mg/kg-day	5.9E-04	mg/kg-day	3.1E-02
				Barium	5E+01	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.7E-04
				Cadmium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	1.0E-03	mg/kg-day	3.4E-04
				Chromium III	6E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.0E-05
				Copper	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	7.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.3E-04
				Lead												
				Manganese	1E+02	mg/kg	7.9E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	4.0E-04
				Mercury	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.3E-04
				Vanadium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	1.0E-03	mg/kg-day	9.6E-03
				Zinc	1E+02	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	3.0E-01	mg/kg-day	7.6E-05
			Exp. Route Total								4E-07					9E-02
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.2E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-08	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.0E-10	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	4.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.2E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	6.9E-06
				Aroclor 1260	3E-02	mg/kg	3.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.1E-10	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.4E-04
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.6E-07	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Cadmium	1E+00	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03
			Exp. Route Total								3E-07					2E-02
		Exposure Point Total									7E-07					1E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 13/TT-27	Ingestion													
				Trichloroethene	2E-02	mg/kg	1.5E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	5.9E-11	5.2E-09	mg/kg-day	3.0E-04	mg/kg-day	1.7E-05
				Benzo(a)anthracene	1E+00	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.3E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	9.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.7E-08	3.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	1.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.3E-08	6.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	1.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.1E-09	5.4E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.6E-08	7.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.4E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Aroclor 1254	2E-02	mg/kg	1.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.1E-10	3.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.9E-04
				Aroclor 1260	2E-01	mg/kg	1.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.1E-09	3.9E-08	mg/kg-day	2.0E-05	mg/kg-day	1.9E-03
				Antimony	1E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.8E-03
				Arsenic	4E+03	mg/kg	2.5E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.9E-05	8.6E-04	mg/kg-day	5.9E-04	mg/kg-day	1.5E+00
				Barium	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	7.0E-02	mg/kg-day	8.2E-04
				Cadmium	9E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	2.2E-03
				Chromium III	6E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.5E+00	mg/kg-day	8.9E-05
				Copper	2E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.9E-04	mg/kg-day	3.0E-02	mg/kg-day	1.3E-02
				Lead												
				Manganese	8E+02	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.6E-03
				Mercury	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02
				Nickel	3E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.0E-02	mg/kg-day	3.8E-04
				Thallium	1E+00	mg/kg	7.5E-09	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.3E-03
				Vanadium	9E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-03	mg/kg-day	2.1E-02
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-01	mg/kg-day	1.8E-03
			Exp. Route Total								2E-05					2E+00
			Dermal													
				Benzo(a)anthracene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.2E-09	4.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.7E-08	4.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E+00	mg/kg	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	8.9E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E+00	mg/kg	2.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.6E-09	7.8E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.3E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.3E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Aroclor 1254	2E-02	mg/kg	1.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.7E-10	6.0E-09	mg/kg-day	2.0E-05	mg/kg-day	3.0E-04
				Aroclor 1260	2E-01	mg/kg	1.7E-09	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.7E-09	6.1E-08	mg/kg-day	2.0E-05	mg/kg-day	3.0E-03
				Arsenic	4E+03	mg/kg	8.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-05	2.9E-04	mg/kg-day	3.0E-04	mg/kg-day	9.7E-01
				Cadmium	9E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02
			Exp. Route Total								1E-05					1E+00
		Exposure Point Total									3E-05					3E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion													
				Trichloroethene	5E-02	mg/kg	3.6E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.4E-10	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	4.2E-05
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	6.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.0E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	6.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.5E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.4E-10	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.5E-08	7.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.6E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.0E-02	mg/kg-day	5.2E-06
				Aroclor 1260	4E-02	mg/kg	2.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.8E-10	9.8E-09	mg/kg-day	2.0E-05	mg/kg-day	4.9E-04
				Antimony	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02
				Arsenic	2E+03	mg/kg	1.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.0E-05	4.5E-04	mg/kg-day	5.9E-04	mg/kg-day	7.7E-01
				Barium	9E+01	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.1E-04
				Cadmium	1E+01	mg/kg	7.3E-08	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-03	mg/kg-day	2.6E-03
				Chromium III	1E+03	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04
				Copper	1E+03	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-02	mg/kg-day	9.4E-03
				Lead												
				Manganese	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Mercury	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	1.0E-04	mg/kg-day	6.5E-02
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	2.0E-02	mg/kg-day	4.8E-04
				Thallium	8E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	8.0E-05	mg/kg-day	2.3E-03
				Vanadium	1E+02	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	5.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.8E-03
				Chromium VI	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04
			Exp. Route Total								1E-05					9E-01
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E+00	mg/kg	9.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.2E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.0E-10	2.4E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.2E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	7.5E-06
				Aroclor 1260	4E-02	mg/kg	4.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	4.4E-10	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	7.7E-04
				Arsenic	2E+03	mg/kg	4.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.5E-06	1.5E-04	mg/kg-day	3.0E-04	mg/kg-day	5.1E-01
				Cadmium	1E+01	mg/kg	8.2E-09	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02
			Exp. Route Total								7E-06					5E-01
		Exposure Point Total									2E-05					1E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-1	Ingestion													
				Trichloroethene	5E-02	mg/kg	3.2E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.3E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.8E-05
				Benzo(a)anthracene	5E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.4E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	9.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	7.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.8E-10	1.3E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	9.3E-09	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-09	7.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	2.0E-02	mg/kg-day	3.7E-06
				Aroclor 1260	3E-02	mg/kg	1.9E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.9E-10	6.7E-09	mg/kg-day	2.0E-05	mg/kg-day	3.3E-04
				Antimony	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.6E-03
				Arsenic	2E+03	mg/kg	1.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.3E-05	5.9E-04	mg/kg-day	5.9E-04	mg/kg-day	1.0E+00
				Barium	1E+02	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	7.0E-02	mg/kg-day	3.6E-04
				Cadmium	9E+00	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03
				Chromium III	2E+03	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.6E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04
				Copper	8E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-02	mg/kg-day	6.6E-03
				Lead												
				Manganese	1E+03	mg/kg	7.2E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	7.0E-02	mg/kg-day	3.6E-03
				Mercury	5E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04
				Thallium	1E+01	mg/kg	7.5E-08	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	8.0E-05	mg/kg-day	3.3E-02
				Vanadium	7E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	2E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.9E-04	mg/kg-day	3.0E-01	mg/kg-day	1.3E-03
				Chromium VI	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	3.0E-03	mg/kg-day	1.6E-04
			Exp. Route Total								1E-05					1E+00
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	5.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.7E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	9E-01	mg/kg	8.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.3E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	5.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.0E-10	1.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.4E-08	6.5E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.3E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.4E-06
				Aroclor 1260	3E-02	mg/kg	3.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.0E-10	1.0E-08	mg/kg-day	2.0E-05	mg/kg-day	5.2E-04
				Arsenic	2E+03	mg/kg	5.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.5E-06	2.0E-04	mg/kg-day	3.0E-04	mg/kg-day	6.6E-01
				Cadmium	9E+00	mg/kg	6.5E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.5E-05	mg/kg-day	9.1E-03
			Exp. Route Total								9E-06					7E-01
		Exposure Point Total									2E-05					2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-2	Ingestion													
				Trichloroethene	4E-02	mg/kg	2.4E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	9.6E-11	8.4E-09	mg/kg-day	3.0E-04	mg/kg-day	2.8E-05
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	4E-01	mg/kg	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-08	8.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	7.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.7E-09	2.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	5.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.6E-10	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	5.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.5E-06
				Aroclor 1260	4E-02	mg/kg	2.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.4E-10	8.4E-09	mg/kg-day	2.0E-05	mg/kg-day	4.2E-04
				Antimony	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	4.0E-04	mg/kg-day	9.0E-03
				Arsenic	2E+03	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.2E-06	4.2E-04	mg/kg-day	5.9E-04	mg/kg-day	7.1E-01
				Barium	9E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03
				Chromium III	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	1.5E+00	mg/kg-day	1.5E-04
				Copper	8E+02	mg/kg	5.1E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	3.0E-02	mg/kg-day	6.0E-03
				Lead												
				Manganese	9E+02	mg/kg	6.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	7.0E-02	mg/kg-day	3.1E-03
				Mercury	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02
				Nickel	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.0E-04
				Thallium	6E-01	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.6E-03
				Vanadium	7E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	1E+03	mg/kg	8.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.0E-03
			Exp. Route Total								9E-06					8E-01
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	4E-01	mg/kg	3.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.6E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.3E-09	4.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	7.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	5.3E-10	2.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.8E-08	8.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	9.7E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.4E-06
				Aroclor 1260	4E-02	mg/kg	3.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.7E-10	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	6.5E-04
				Arsenic	2E+03	mg/kg	4.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.0E-06	1.4E-04	mg/kg-day	3.0E-04	mg/kg-day	4.7E-01
				Cadmium	6E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.7E-03
			Exp. Route Total								6E-06					5E-01
		Exposure Point Total									2E-05					1E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station NT-3	Ingestion													
				Trichloroethene	5E-02	mg/kg	3.2E-10	mg/kg-day	4.0E-01	$(mg/kg\text{-}day)^{-1}$	1.3E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.8E-05
				Benzo(a)anthracene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	1.7E-09	8.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	3.9E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.9E-08	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	6.1E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	4.4E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	3.1E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	2.3E-10	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.1E-09	4.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.2E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	8.7E-08	mg/kg-day	2.0E-02	mg/kg-day	4.3E-06
				Aroclor 1260	3E-02	mg/kg	2.3E-10	mg/kg-day	1.0E+00	$(mg/kg\text{-}day)^{-1}$	2.3E-10	8.2E-09	mg/kg-day	2.0E-05	mg/kg-day	4.1E-04
				Antimony	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	4.0E-04	mg/kg-day	9.0E-03
				Arsenic	5E+02	mg/kg	3.4E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.0E-01
				Barium	9E+01	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.2E-04
				Cadmium	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-03	mg/kg-day	1.6E-03
				Chromium III	1E+03	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04
				Copper	8E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-02	mg/kg-day	6.6E-03
				Lead												
				Manganese	1E+03	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03
				Mercury	5E+00	mg/kg	3.4E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02
				Nickel	4E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.0E-02	mg/kg-day	4.3E-04
				Thallium	6E-01	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.7E-03
				Vanadium	7E+01	mg/kg	4.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	1E+03	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-01	mg/kg-day	9.5E-04
			Exp. Route Total								3E-06					3E-01
			Dermal													
				Benzo(a)anthracene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	5.7E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.2E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	9E-01	mg/kg	8.8E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	5E-01	mg/kg	4.5E-09	mg/kg-day	7.3E-02	$(mg/kg\text{-}day)^{-1}$	3.3E-10	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-08	6.3E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	4.3E-09	mg/kg-day	7.3E-01	$(mg/kg\text{-}day)^{-1}$	3.2E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.3E-06
				Aroclor 1260	3E-02	mg/kg	3.7E-10	mg/kg-day	1.0E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-10	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	6.4E-04
				Arsenic	5E+02	mg/kg	1.1E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.7E-06	4.0E-05	mg/kg-day	3.0E-04	mg/kg-day	1.3E-01
				Cadmium	7E+00	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	2.5E-05	mg/kg-day	7.2E-03
			Exp. Route Total								2E-06					1E-01
		Exposure Point Total									4E-06					4E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion													
				Trichloroethene	4E-02	mg/kg	2.8E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	1.1E-10	1.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.3E-05
				Benzo(a)anthracene	1E-01	mg/kg	8.8E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-10	3.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.9E-11	4.7E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	3.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.3E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.9E-10	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.9E-06
				Aroclor 1260	1E-02	mg/kg	7.5E-11	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.5E-11	2.6E-09	mg/kg-day	2.0E-05	mg/kg-day	1.3E-04
				Antimony	9E+00	mg/kg	6.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	4.0E-04	mg/kg-day	5.4E-03
				Arsenic	3E+02	mg/kg	1.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.4E-06	6.2E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01
				Barium	9E+01	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.2E-04
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03
				Chromium III	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	1.5E+00	mg/kg-day	1.5E-04
				Copper	6E+02	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.0E-03
				Lead												
				Manganese	1E+03	mg/kg	6.9E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03
				Mercury	3E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-04	mg/kg-day	7.0E-03
				Nickel	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	2.0E-02	mg/kg-day	4.1E-04
				Thallium	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.3E-03
				Vanadium	7E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	1E+03	mg/kg	7.4E-06	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.4E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.2E-08	5.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	3E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.4E-10	6.9E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	5E-02	mg/kg	4.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.3E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.0E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	2E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.8E-06
				Aroclor 1260	1E-02	mg/kg	1.2E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.2E-10	4.1E-09	mg/kg-day	2.0E-05	mg/kg-day	2.0E-04
				Arsenic	3E+02	mg/kg	6.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.0E-07	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	7.0E-02
				Cadmium	6E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.8E-03
			Exp. Route Total								9E-07					8E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WW	Ingestion													
				Benzo(b)fluoranthene	3E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.6E-09	7.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	3.0E-10	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Antimony	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	4.0E-04	mg/kg-day	1.7E-02
				Arsenic	4E+01	mg/kg	2.8E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.1E-07	9.7E-06	mg/kg-day	5.9E-04	mg/kg-day	1.6E-02
				Barium	1E+03	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.9E-03
				Cadmium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Chromium III	2E+04	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	3.7E-03	mg/kg-day	1.5E+00	mg/kg-day	2.4E-03
				Copper	4E+02	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	9.8E-05	mg/kg-day	3.0E-02	mg/kg-day	3.3E-03
				Lead												
				Manganese	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	1E+00	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Nickel	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	2.0E-02	mg/kg-day	3.0E-04
				Thallium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	8.0E-05	mg/kg-day	4.5E-03
				Vanadium	8E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-03	mg/kg-day	1.8E-02
				Zinc	1E+03	mg/kg	9.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
				Chromium VI	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	3.0E-03	mg/kg-day	1.6E-03
			Exp. Route Total								2E-07					8E-02
			Dermal													
				Benzo(b)fluoranthene	3E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	6E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.4E-10	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Arsenic	4E+01	mg/kg	9.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	3.3E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Cadmium	1E+01	mg/kg	7.3E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02
			Exp. Route Total								1E-07					2E-02
		Exposure Point Total									4E-07					1E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station JY	Ingestion													
				Aroclor 1254	1E+00	mg/kg	9.3E-09	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.3E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02
				Aroclor 1260	1E+00	mg/kg	1.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.0E-08	3.5E-07	mg/kg-day	2.0E-05	mg/kg-day	1.7E-02
				Antimony	5E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.2E-03
				Arsenic	3E+02	mg/kg	1.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.5E-06	6.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01
				Barium	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	6.2E-04
				Cadmium	1E+01	mg/kg	9.9E-08	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Chromium III	1E+03	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04
				Copper	5E+02	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	4.0E-03
				Lead												
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.3E-07	mg/kg-day	1.0E-04	mg/kg-day	4.3E-03
				Nickel	8E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.0E-02	mg/kg-day	8.9E-04
				Thallium	4E+00	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	8.0E-05	mg/kg-day	1.2E-02
				Vanadium	6E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03
				Chromium VI	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04
			Exp. Route Total								1E-06					2E-01
			Dermal													
				Aroclor 1254	1E+00	mg/kg	1.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.5E-08	5.1E-07	mg/kg-day	2.0E-05	mg/kg-day	2.5E-02
				Aroclor 1260	1E+00	mg/kg	1.6E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.6E-08	5.5E-07	mg/kg-day	2.0E-05	mg/kg-day	2.7E-02
				Arsenic	3E+02	mg/kg	6.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.7E-07	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.5E-02
				Cadmium	1E+01	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	3.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.5E-02
			Exp. Route Total								1E-06					1E-01
		Exposure Point Total									2E-06					3E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion													
				Antimony	5E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	4.0E-04	mg/kg-day	8.8E-03
				Arsenic	2E+02	mg/kg	4.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.5E-06	1.6E-04	mg/kg-day	5.9E-04	mg/kg-day	2.7E-01
				Barium	1E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Cadmium	1E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	7.6E-03
				Chromium III	7E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	1.5E+00	mg/kg-day	3.5E-04
				Copper	4E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.8E-03
				Lead												
				Manganese	1E+03	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	8.7E-04	mg/kg-day	7.0E-02	mg/kg-day	1.2E-02
				Mercury	1E+00	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-04	mg/kg-day	9.7E-03
				Nickel	4E+01	mg/kg	7.4E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03
				Thallium	1E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.8E-03
				Vanadium	4E+01	mg/kg	9.1E-07	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-03	mg/kg-day	3.2E-02
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03
				Chromium VI	9E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.7E-07	mg/kg-day	3.0E-03	mg/kg-day	2.2E-04
			Exp. Route Total								4E-06					4E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-06	5.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.8E-01
				Cadmium	1E+01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	8.5E-07	mg/kg-day	2.5E-05	mg/kg-day	3.4E-02
			Exp. Route Total								2E-06					2E-01
		Exposure Point Total									6E-06					6E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion													
				Arsenic	1E+03	mg/kg	7.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	5.6E-06	2.6E-04	mg/kg-day	5.9E-04	mg/kg-day	4.3E-01
				Barium	3E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Cadmium	7E+00	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03
				Chromium III	5E+03	mg/kg	3.6E-05	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.4E-04
				Copper	4E+03	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	8.9E-04	mg/kg-day	3.0E-02	mg/kg-day	3.0E-02
				Lead												
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	7.0E-04
				Mercury	9E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01
				Nickel	8E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	9.5E-05
				Thallium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	8.0E-05	mg/kg-day	4.5E-03
				Vanadium	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03
				Zinc	1E+03	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-01	mg/kg-day	9.3E-04
				Chromium VI	7E+00	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-03	mg/kg-day	5.5E-04
			Exp. Route Total								6E-06					7E-01
			Dermal													
				Arsenic	1E+03	mg/kg	2.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.7E-06	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01
				Cadmium	7E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03
			Exp. Route Total								4E-06					3E-01
		Exposure Point Total									9E-06					1E+00
		Station TT-31	Ingestion													
				Arsenic	2E+01	mg/kg	1.1E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.7E-08	3.9E-06	mg/kg-day	5.9E-04	mg/kg-day	6.7E-03
				Barium	9E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.1E-04
				Cadmium	4E+00	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	1.0E-03	mg/kg-day	9.9E-04
				Chromium III	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.5E+00	mg/kg-day	2.9E-05
				Copper	1E+02	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	9.0E-04
				Lead												
				Manganese	6E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
				Mercury	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	1.0E-04	mg/kg-day	3.4E-03
				Nickel	3E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	6.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.1E-04
				Vanadium	5E+01	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-03	mg/kg-day	1.1E-02
				Zinc	5E+02	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-01	mg/kg-day	3.7E-04
			Exp. Route Total								9E-08					3E-02
			Dermal													
				Arsenic	2E+01	mg/kg	3.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-08	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.4E-03
				Cadmium	4E+00	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.4E-03
			Exp. Route Total								6E-08					9E-03
		Exposure Point Total									1E-07					3E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion													
				Antimony	2E+00	mg/kg	4.2E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	4.0E-04	mg/kg-day	3.6E-03
				Arsenic	6E+01	mg/kg	1.2E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	9.1E-07	4.1E-05	mg/kg-day	5.9E-04	mg/kg-day	7.0E-02
				Barium	6E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	7.0E-02	mg/kg-day	6.0E-04
				Cadmium	9E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	1.0E-03	mg/kg-day	6.6E-03
				Chromium III	3E+02	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04
				Copper	7E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.8E-02
				Lead												
				Manganese	7E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	4.9E-04	mg/kg-day	7.0E-02	mg/kg-day	7.0E-03
				Mercury	3E+00	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-04	mg/kg-day	2.1E-02
				Nickel	2E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.0E-02	mg/kg-day	7.3E-04
				Thallium	3E+00	mg/kg	5.2E-08	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02
				Vanadium	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	1.0E-03	mg/kg-day	5.7E-02
				Zinc	6E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03
			Exp. Route Total								9E-07					2E-01
			Dermal													
				Arsenic	6E+01	mg/kg	4.0E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.9E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.6E-02
				Cadmium	9E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02
			Exp. Route Total								6E-07					8E-02
		Exposure Point Total									2E-06					3E-01
		Station CB-02	Ingestion													
				Antimony	2E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.2E-03
				Arsenic	4E+01	mg/kg	8.4E-07	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.5E-07	3.0E-05	mg/kg-day	5.9E-04	mg/kg-day	5.0E-02
				Barium	2E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03
				Cadmium	4E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03
				Chromium III	1E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.5E+00	mg/kg-day	6.8E-05
				Copper	1E+02	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	3.0E-02	mg/kg-day	2.3E-03
				Lead												
				Manganese	7E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	7.0E-02	mg/kg-day	7.3E-04
				Mercury	3E-01	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Nickel	1E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.6E-04
				Vanadium	3E+01	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02
				Zinc	3E+02	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.5E-04
			Exp. Route Total								6E-07					9E-02
			Dermal													
				Arsenic	4E+01	mg/kg	2.8E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	4.3E-07	9.9E-06	mg/kg-day	3.0E-04	mg/kg-day	3.3E-02
				Cadmium	4E+00	mg/kg	8.7E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.2E-02
			Exp. Route Total								4E-07					5E-02
		Exposure Point Total									1E-06					1E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion													
				Antimony	2E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.7E-03
				Arsenic	6E+02	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.3E-06	4.2E-04	mg/kg-day	5.9E-04	mg/kg-day	7.2E-01
				Barium	7E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04
				Cadmium	1E+01	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	9.3E-06	mg/kg-day	1.0E-03	mg/kg-day	9.3E-03
				Chromium III	5E+02	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	1.5E+00	mg/kg-day	2.2E-04
				Copper	4E+02	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	3.0E-02	mg/kg-day	8.9E-03
				Lead												
				Manganese	5E+02	mg/kg	9.4E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	4.7E-03
				Mercury	2E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Nickel	4E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03
				Thallium	1E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	6.9E-07	mg/kg-day	8.0E-05	mg/kg-day	8.6E-03
				Vanadium	6E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02
				Zinc	2E+03	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.0E-03
			Exp. Route Total								9E-06					8E-01
			Dermal													
				Arsenic	6E+02	mg/kg	4.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-06	1.4E-04	mg/kg-day	3.0E-04	mg/kg-day	4.7E-01
				Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.5E-05	mg/kg-day	4.2E-02
			Exp. Route Total								6E-06					5E-01
		Exposure Point Total									2E-05					1E+00
		Station CB-04	Ingestion													
				Antimony	5E+00	mg/kg	9.7E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
				Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.8E-06	1.3E-04	mg/kg-day	5.9E-04	mg/kg-day	2.2E-01
				Barium	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.8E-04
				Cadmium	6E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	4.1E-03
				Chromium III	3E+02	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	1.5E+00	mg/kg-day	1.3E-04
				Copper	2E+02	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.8E-03
				Lead												
				Manganese	1E+03	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	9.8E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-02
				Mercury	1E+00	mg/kg	2.5E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	1.0E-04	mg/kg-day	8.6E-03
				Nickel	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	2.0E-02	mg/kg-day	2.7E-03
				Thallium	1E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	8.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.0E-02
				Vanadium	7E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02
				Zinc	3E+03	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	3.0E-01	mg/kg-day	7.3E-03
			Exp. Route Total								3E-06					3E-01
			Dermal													
				Arsenic	2E+02	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-06	4.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.4E-01
				Cadmium	6E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
			Exp. Route Total								2E-06					2E-01
		Exposure Point Total									5E-06					5E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion													
				Antimony	5E+00	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.4E-03
				Arsenic	1E+02	mg/kg	2.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.2E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01
				Barium	5E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	7.0E-02	mg/kg-day	5.2E-04
				Cadmium	2E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Chromium III	5E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04
				Copper	2E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.6E-03
				Lead												
				Manganese	9E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	6.7E-05	mg/kg-day	7.0E-02	mg/kg-day	9.5E-04
				Mercury	3E-01	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-04	mg/kg-day	2.4E-03
				Nickel	3E+01	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.0E-02	mg/kg-day	9.8E-04
				Thallium	4E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	8.0E-05	mg/kg-day	3.7E-02
				Vanadium	7E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	1.0E-03	mg/kg-day	5.1E-02
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03
				Chromium VI	6E-01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.5E-04
			Exp. Route Total								2E-06					3E-01
			Dermal													
				Arsenic	1E+02	mg/kg	9.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-06	3.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Cadmium	2E+01	mg/kg	3.9E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.5E-02
			Exp. Route Total								1E-06					2E-01
		Exposure Point Total									4E-06					5E-01
		Station CB-07	Ingestion													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.5E-02
				Barium	6E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
				Cadmium	5E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	7E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04
				Copper	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Lead												
				Manganese	3E+02	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	7.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	1.0E-04	mg/kg-day	3.1E-03
				Nickel	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.6E-04
				Vanadium	9E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	1.0E-03	mg/kg-day	2.2E-02
				Zinc	6E+02	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-01	mg/kg-day	4.9E-04
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.2E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02
				Cadmium	5E+00	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion													
				Benzo(a)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	5.4E-10	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	6.9E-09	3.3E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.2E-09	5.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	6.7E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	4.9E-11	2.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	4.1E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	3.0E-10	1.4E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	8.8E-10	mg/kg-day	N/A	N/A	N/A	3.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06
				Antimony	6E+00	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.5E-03
				Arsenic	2E+02	mg/kg	1.6E-06	mg/kg-day	7.7E-01	(mg/kg-day)$^{-1}$	1.2E-06	5.6E-05	mg/kg-day	5.9E-04	mg/kg-day	9.5E-02
				Barium	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium III	6E+02	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.5E+00	mg/kg-day	9.1E-05
				Copper	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.5E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Lead												
				Manganese	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	1.0E-04	mg/kg-day	8.1E-03
				Nickel	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.8E-04
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
				Zinc	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.4E-04
				Chromium VI	7E-01	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	3.0E-03	mg/kg-day	5.9E-05
			Exp. Route Total								1E-06					1E-01
			Dermal													
				Benzo(a)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	7.9E-10	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	1E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	1.0E-08	4.8E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	1.7E-09	8.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E-01	mg/kg	9.8E-10	mg/kg-day	7.3E-02	(mg/kg-day)$^{-1}$	7.1E-11	3.4E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.9E-10	mg/kg-day	7.3E-01	(mg/kg-day)$^{-1}$	4.3E-10	2.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.2E-06
				Arsenic	2E+02	mg/kg	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	8.1E-07	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02
				Cadmium	6E+00	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	6.0E-03
			Exp. Route Total								8E-07					7E-02
		Exposure Point Total									2E-06					2E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	8.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.0E-10	2.9E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	5.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.0E-02	mg/kg-day	3.6E-06
				Antimony	1E+00	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.0E-04
				Arsenic	3E+01	mg/kg	2.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-07	8.3E-06	mg/kg-day	5.9E-04	mg/kg-day	1.4E-02
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04
				Cadmium	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04
				Chromium III	6E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06
				Copper	6E+01	mg/kg	4.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.0E-04
				Lead												
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	4E-01	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	9.1E-08	mg/kg-day	1.0E-04	mg/kg-day	9.1E-04
				Nickel	1E+01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Thallium	1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	8.0E-05	mg/kg-day	3.8E-03
				Vanadium	1E+01	mg/kg	9.3E-08	mg/kg-day	N/A	N/A	N/A	3.2E-06	mg/kg-day	1.0E-03	mg/kg-day	3.2E-03
				Zinc	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.9E-04
			Exp. Route Total								2E-07					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.4E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	5.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.6E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.5E-09	4.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.7E-10	4.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	8E-02	mg/kg	7.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.8E-09	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.8E-09	8.7E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	3E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.3E-06
				Arsenic	3E+01	mg/kg	7.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	9.3E-03
				Cadmium	7E-01	mg/kg	5.2E-10	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	2.5E-05	mg/kg-day	7.2E-04
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					3E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station AM	Ingestion													
				Antimony	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	4.0E-04	mg/kg-day	1.2E-03
				Arsenic	1E+02	mg/kg	8.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.3E-07	2.9E-05	mg/kg-day	5.9E-04	mg/kg-day	4.9E-02
				Barium	6E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	2.0E-04
				Cadmium	4E+00	mg/kg	2.6E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	1.0E-03	mg/kg-day	9.3E-04
				Chromium III	3E+02	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.5E+00	mg/kg-day	5.1E-05
				Copper	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	3.0E-02	mg/kg-day	1.6E-03
				Lead												
				Manganese	1E+03	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.9E-03
				Mercury	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	1.0E-04	mg/kg-day	4.5E-03
				Nickel	2E+01	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	2.0E-02	mg/kg-day	2.1E-04
				Thallium	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.3E-03
				Vanadium	3E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	6.4E-06	mg/kg-day	1.0E-03	mg/kg-day	6.4E-03
				Zinc	9E+02	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.4E-04
			Exp. Route Total								6E-07					7E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-07	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Cadmium	4E+00	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.1E-03
			Exp. Route Total								4E-07					4E-02
		Exposure Point Total									1E-06					1E-01
		Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	3.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.7E-07	1.2E-05	mg/kg-day	5.9E-04	mg/kg-day	2.1E-02
				Barium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	7.0E-02	mg/kg-day	1.4E-04
				Cadmium	1E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	1.0E-03	mg/kg-day	2.5E-04
				Chromium III	9E+01	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.5E+00	mg/kg-day	1.4E-05
				Copper	1E+02	mg/kg	7.6E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	8.9E-04
				Lead												
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.6E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	9E-01	mg/kg	6.0E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	1.0E-04	mg/kg-day	2.1E-03
				Nickel	9E+00	mg/kg	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
				Vanadium	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	5.5E-03
				Zinc	3E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.3E-05	mg/kg-day	3.0E-01	mg/kg-day	2.8E-04
			Exp. Route Total								3E-07					3E-02
			Dermal													
				Arsenic	5E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-07	4.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.4E-02
				Cadmium	1E+00	mg/kg	7.9E-10	mg/kg-day	N/A	N/A	N/A	2.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.1E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					5E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion													
				Benzo(a)anthracene	5E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	4.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.4E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	9.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.7E-10	3.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	6.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.6E-09	2.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.0E-09	9.5E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.7E-06
				Antimony	1E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.1E-04
				Arsenic	2E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	9.8E-08	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03
				Barium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	7.0E-02	mg/kg-day	6.4E-05
				Chromium III	5E+01	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.6E-06
				Copper	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.8E-04
				Lead												
				Manganese	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	7.0E-02	mg/kg-day	5.5E-04
				Mercury	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
				Nickel	1E+01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04
				Thallium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	8.0E-05	mg/kg-day	4.3E-03
				Vanadium	1E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03
				Zinc	4E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.3E-05	mg/kg-day	3.0E-01	mg/kg-day	2.8E-04
			Exp. Route Total								1E-07					2E-02
			Dermal													
				Benzo(a)anthracene	5E-01	mg/kg	4.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.5E-09	1.7E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E-01	mg/kg	6.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.5E-08	2.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.3E-09	4.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	9.8E-10	4.7E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	9E-02	mg/kg	9.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	6.7E-09	3.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	4.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.9E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.2E-06
				Arsenic	2E+01	mg/kg	4.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.4E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.0E-03
			Exp. Route Total								1E-07					5E-03
		Exposure Point Total									3E-07					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion													
				Trichloroethene	2E-02	mg/kg	1.5E-10	mg/kg-day	4.0E-01	(mg/kg-day) $^{-1}$	6.0E-11	5.3E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05
				Benzo(a)anthracene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.7E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.7E-08	2.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	6.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	4.5E-09	2.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	7.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.4E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.9E-08	9.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.1E-05
				Aroclor 1260	7E-02	mg/kg	4.5E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	4.5E-10	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	7.9E-04
				Antimony	2E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	4.0E-04	mg/kg-day	1.4E-03
				Arsenic	8E+01	mg/kg	5.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.2E-07	1.9E-05	mg/kg-day	5.9E-04	mg/kg-day	3.2E-02
				Barium	8E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
				Chromium III	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	1.5E+00	mg/kg-day	3.9E-05
				Copper	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.9E-03
				Lead												
				Manganese	4E+02	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	9.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	3E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03
				Nickel	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	2.0E-02	mg/kg-day	3.3E-04
				Thallium	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	8.0E-05	mg/kg-day	6.6E-03
				Vanadium	5E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
				Zinc	1E+03	mg/kg	9.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
			Exp. Route Total								8E-07					7E-02
			Dermal													
				Benzo(a)anthracene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.0E-08	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	4.0E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	1E+01	mg/kg	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	6.9E-08	3.3E-06	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	9E+00	mg/kg	9.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	6.6E-09	3.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.8E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E+00	mg/kg	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Aroclor 1260	7E-02	mg/kg	7.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.1E-10	2.5E-08	mg/kg-day	2.0E-05	mg/kg-day	1.2E-03
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	6.4E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Cadmium	5E+00	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.5E-05	mg/kg-day	5.4E-03
			Exp. Route Total								9E-07					3E-02
		Exposure Point Total									2E-06					9E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station LP	Ingestion													
				Antimony	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	4.0E-04	mg/kg-day	1.0E-03
				Arsenic	2E+02	mg/kg	1.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.9E-07	3.6E-05	mg/kg-day	5.9E-04	mg/kg-day	6.1E-02
				Barium	4E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Cadmium	3E+00	mg/kg	1.8E-08	mg/kg-day	N/A	N/A	N/A	6.3E-07	mg/kg-day	1.0E-03	mg/kg-day	6.3E-04
				Chromium III	8E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	3.0E-02	mg/kg-day	2.9E-03
				Lead												
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	7.1E-04
				Mercury	7E-01	mg/kg	4.9E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03
				Nickel	1E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.7E-04
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	8.0E-05	mg/kg-day	5.6E-03
				Vanadium	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03
				Zinc	1E+03	mg/kg	8.8E-06	mg/kg-day	N/A	N/A	N/A	3.1E-04	mg/kg-day	3.0E-01	mg/kg-day	1.0E-03
			Exp. Route Total								8E-07					8E-02
			Dermal													
				Arsenic	2E+02	mg/kg	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.2E-07	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.0E-02
				Cadmium	3E+00	mg/kg	2.0E-09	mg/kg-day	N/A	N/A	N/A	7.0E-08	mg/kg-day	2.5E-05	mg/kg-day	2.8E-03
			Exp. Route Total								5E-07					4E-02
		Exposure Point Total									1E-06					1E-01
		Station AS	Ingestion													
				Antimony	3E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	6.0E-07	mg/kg-day	4.0E-04	mg/kg-day	1.5E-03
				Arsenic	1E+02	mg/kg	7.9E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	6.1E-07	2.8E-05	mg/kg-day	5.9E-04	mg/kg-day	4.7E-02
				Barium	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	7.0E-02	mg/kg-day	3.5E-04
				Cadmium	1E+01	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	2.8E-03
				Chromium III	7E+02	mg/kg	5.1E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.2E-04
				Copper	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	4.0E-03
				Lead												
				Manganese	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.1E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03
				Mercury	3E+00	mg/kg	2.1E-08	mg/kg-day	N/A	N/A	N/A	7.3E-07	mg/kg-day	1.0E-04	mg/kg-day	7.3E-03
				Nickel	4E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.0E-02	mg/kg-day	4.4E-04
				Thallium	1E+00	mg/kg	7.3E-09	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.2E-03
				Vanadium	7E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03
			Exp. Route Total								6E-07					9E-02
			Dermal													
				Arsenic	1E+02	mg/kg	2.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-07	9.3E-06	mg/kg-day	3.0E-04	mg/kg-day	3.1E-02
				Cadmium	1E+01	mg/kg	9.1E-09	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	2.5E-05	mg/kg-day	1.3E-02
			Exp. Route Total								4E-07					4E-02
		Exposure Point Total									1E-06					1E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion													
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.7E-08	8.2E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	8.4E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.6E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.1E-06
				Antimony	9E-01	mg/kg	6.4E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.6E-04
				Arsenic	8E+00	mg/kg	5.6E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.3E-08	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.3E-03
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Cadmium	2E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	5.2E-08	mg/kg-day	1.0E-03	mg/kg-day	5.2E-05
				Chromium III	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.5E+00	mg/kg-day	5.3E-06
				Copper	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.0E-04
				Lead												
				Manganese	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03
				Mercury	9E-02	mg/kg	6.1E-10	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	1.0E-04	mg/kg-day	2.1E-04
				Nickel	1E+01	mg/kg	6.9E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04
				Thallium	6E-01	mg/kg	4.2E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	8.0E-05	mg/kg-day	1.8E-03
				Vanadium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-03	mg/kg-day	4.5E-03
				Zinc	1E+02	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-01	mg/kg-day	9.6E-05
			Exp. Route Total								7E-08					1E-02
			Dermal													
				Benzo(a)anthracene	4E-01	mg/kg	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	4E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.8E-10	8.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	7E-01	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
				Arsenic	8E+00	mg/kg	1.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.8E-08	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.2E-03
				Cadmium	2E-01	mg/kg	1.7E-10	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04
			Exp. Route Total								6E-08					2E-03
		Exposure Point Total									1E-07					1E-02

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion													
				Benzo(a)anthracene	6E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.8E-09	1.3E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	2.3E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	3.0E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.7E-10	8.2E-08	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	5.4E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.7E-09	8.0E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06
				Aroclor 1260	5E-02	mg/kg	3.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	3.4E-10	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	5.9E-04
				Antimony	8E-01	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	4.0E-04	mg/kg-day	4.7E-04
				Arsenic	3E+01	mg/kg	2.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.7E-07	7.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.3E-02
				Barium	4E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04
				Cadmium	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-03	mg/kg-day	4.1E-04
				Chromium III	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05
				Copper	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	4.9E-04
				Lead												
				Manganese	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	7.0E-02	mg/kg-day	7.3E-04
				Mercury	3E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	6.3E-08	mg/kg-day	1.0E-04	mg/kg-day	6.3E-04
				Nickel	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.5E-04
				Vanadium	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	5.3E-03
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.1E-04
			Exp. Route Total								2E-07					2E-02
			Dermal													
				Benzo(a)anthracene	6E-01	mg/kg	5.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.1E-09	2.0E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	5E-01	mg/kg	4.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	3.4E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	6E-01	mg/kg	5.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	4.3E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	2.5E-10	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	2.4E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
				Aroclor 1260	5E-02	mg/kg	5.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	5.3E-10	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	9.3E-04
				Arsenic	3E+01	mg/kg	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.8E-03
				Cadmium	2E+00	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									4E-07					3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion													
				Benzo(a)anthracene	2E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	9.5E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	8.6E-09	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.2E-10	3.9E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	8.7E-11	4.2E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	8.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	5.9E-10	2.8E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06
				Antimony	9E-01	mg/kg	6.0E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	4.0E-04	mg/kg-day	5.2E-04
				Arsenic	6E+00	mg/kg	4.2E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-08	1.5E-06	mg/kg-day	5.9E-04	mg/kg-day	2.5E-03
				Barium	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05
				Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	1.0E-03	mg/kg-day	3.9E-05
				Chromium III	8E+00	mg/kg	5.6E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.5E+00	mg/kg-day	1.3E-06
				Copper	1E+01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.3E-05
				Lead												
				Manganese	8E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	2.8E-04
				Nickel	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.6E-05
				Thallium	5E-01	mg/kg	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03
				Vanadium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03
				Zinc	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.1E-05
			Exp. Route Total								4E-08					7E-03
			Dermal													
				Benzo(a)anthracene	2E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.4E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(a)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) $^{-1}$	1.3E-08	6.0E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	1.2E-09	5.7E-08	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) $^{-1}$	1.3E-10	6.1E-08	mg/kg-day	N/A	N/A	N/A
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) $^{-1}$	8.7E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
				Arsenic	6E+00	mg/kg	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-08	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Cadmium	2E-01	mg/kg	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.4E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									8E-08					9E-03
	Exposure Medium Total										N/A					N/A

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil	Surface Soil	Station NR	Ingestion													
				Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	4.8E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01
				Cadmium	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	1.0E-03	mg/kg-day	5.1E-04
				Chromium VI	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-03	mg/kg-day	1.4E-02
				Copper	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-02	mg/kg-day	1.4E-03
				Manganese	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	7.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.0E-03
				Mercury	8E-01	mg/kg	5.5E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03
				Vanadium	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	1.0E-03	mg/kg-day	6.0E-03
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.2E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.9E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02
				Cadmium	2E+00	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03
			Exp. Route Total								7E-07					6E-02
		Exposure Point Total									3E-06					2E-01
		Station WS/WSS	Ingestion													
				Arsenic	1E+01	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-06	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02
				Cadmium	2E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-03	mg/kg-day	2.8E-04
				Chromium VI	2E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-03	mg/kg-day	8.7E-03
				Copper	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
				Manganese	2E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.9E-03
				Mercury	1E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03
				Thallium	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	8.0E-05	mg/kg-day	2.1E-02
				Vanadium	2E+01	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-03	mg/kg-day	3.4E-02
				Zinc	7E+01	mg/kg	8.8E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	3.0E-01	mg/kg-day	3.4E-04
			Exp. Route Total								2E-06					1E-01
			Dermal													
				Arsenic	1E+01	mg/kg	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.0E-03
				Cadmium	2E-01	mg/kg	4.4E-10	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.2E-04
			Exp. Route Total								1E-07					9E-03
		Exposure Point Total									2E-06					1E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion													
				Arsenic	6E+01	mg/kg	7.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-05	8.5E-05	mg/kg-day	3.0E-04	mg/kg-day	2.8E-01
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04
				Chromium VI	1E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	6.5E-02
				Copper	5E+01	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Mercury	3E-01	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-04	mg/kg-day	4.1E-03
				Thallium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.9E-02
				Vanadium	3E+01	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	3.7E-05	mg/kg-day	1.0E-03	mg/kg-day	3.7E-02
				Zinc	2E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-01	mg/kg-day	7.9E-04
			Exp. Route Total								1E-05					4E-01
			Dermal													
				Arsenic	6E+01	mg/kg	4.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02
				Cadmium	7E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03
			Exp. Route Total								6E-07					5E-02
		Exposure Point Total									1E-05					5E-01
		Station DA	Ingestion													
				Arsenic	2E+02	mg/kg	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-06	4.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Cadmium	1E+00	mg/kg	9.2E-09	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	1.0E-03	mg/kg-day	3.2E-04
				Chromium VI	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-03	mg/kg-day	3.1E-02
				Copper	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Manganese	8E+02	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	7.0E-02	mg/kg-day	2.7E-03
				Mercury	1E+00	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Thallium	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.9E-03
				Vanadium	4E+01	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	1.0E-03	mg/kg-day	9.0E-03
				Zinc	6E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.7E-04
			Exp. Route Total								2E-06					2E-01
			Dermal													
				Arsenic	2E+02	mg/kg	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.7E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.2E-02
				Cadmium	1E+00	mg/kg	1.0E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.4E-03
			Exp. Route Total								7E-07					5E-02
		Exposure Point Total									3E-06					3E-01

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TABLE 3-7.4.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion													
				Arsenic	5E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.6E-02
				Cadmium	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	1.0E-03	mg/kg-day	3.3E-04
				Chromium VI	1E+02	mg/kg	8.1E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03
				Copper	1E+02	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-02	mg/kg-day	8.6E-04
				Manganese	8E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	7.0E-02	mg/kg-day	2.8E-03
				Mercury	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03
				Vanadium	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	1.0E-03	mg/kg-day	6.9E-03
				Zinc	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-01	mg/kg-day	3.1E-04
			Exp. Route Total								5E-07					6E-02
			Dermal													
				Arsenic	5E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	3.7E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Cadmium	1E+00	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									6E-07					7E-02
		Station 07/DP	Ingestion													
				Arsenic	4E+01	mg/kg	3.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.5E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.5E-02
				Cadmium	2E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	1.0E-03	mg/kg-day	4.5E-05
				Chromium VI	1E+02	mg/kg	9.5E-07	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	3.0E-03	mg/kg-day	1.1E-02
				Copper	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	8.0E-04
				Manganese	3E+02	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03
				Mercury	1E+00	mg/kg	6.5E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	8.0E-05	mg/kg-day	5.6E-03
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-03	mg/kg-day	7.5E-03
				Zinc	2E+04	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	4.5E-03	mg/kg-day	3.0E-01	mg/kg-day	1.5E-02
			Exp. Route Total								5E-07					8E-02
			Dermal													
				Arsenic	4E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.5E-07	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Cadmium	2E-01	mg/kg	1.4E-10	mg/kg-day	N/A	N/A	N/A	5.0E-09	mg/kg-day	2.5E-05	mg/kg-day	2.0E-04
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									6E-07					9E-02
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	6.0E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	1.4E-08	7.0E-07	mg/kg-day	2.0E-03	mg/kg-day	3.5E-04
				4,4'-DDE	2E-02	mg/kg	1.4E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	4.8E-08	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.5E-03
				4,4'-DDT	3E-03	mg/kg	2.5E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	8.6E-09	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	5.9E-04
				Aldrin	3E-04	mg/kg	2.9E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	4.9E-08	3.4E-08	mg/kg-day	3.0E-05	mg/kg-day	1.1E-03
				alpha-Chlordane	6E-03	mg/kg	5.2E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	1.8E-08	6.0E-07	mg/kg-day	5.0E-04	mg/kg-day	1.2E-03
				Aroclor-1254	2E-02	mg/kg	2.0E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	3.9E-07	2.3E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01
				Aroclor-1260	6E-02	mg/kg	5.6E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	1.1E-06	6.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.3E-01
				delta-BHC	6E-04	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04
				Dieldrin	2E-03	mg/kg	2.0E-08	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	3.2E-07	2.3E-07	mg/kg-day	5.0E-05	mg/kg-day	4.7E-03
				Heptachlor epoxide	8E-04	mg/kg	7.6E-09	mg/kg-day	9.1E+00	$(mg/kg-day)^{-1}$	6.9E-08	8.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.8E-03
				Antimony	9E-02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	4.0E-04	mg/kg-day	2.5E-02
				Lead												
				Mercury	4E-01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-04	mg/kg-day	3.8E-01
				Selenium	6E-01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02
			Exp. Route Total								2E-06					9E-01
		Exposure Point Total									2E-06					9E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	1.4E-07	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	3.4E-08	1.7E-06	mg/kg-day	2.0E-03	mg/kg-day	8.3E-04
				4,4'-DDE	9E-02	mg/kg	7.7E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	2.6E-07	9.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
				4,4'-DDT	8E-03	mg/kg	7.2E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	2.5E-08	8.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.7E-03
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03
				alpha-Chlordane	3E-03	mg/kg	2.3E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	8.0E-09	2.7E-07	mg/kg-day	5.0E-04	mg/kg-day	5.3E-04
				Aroclor-1254	9E-02	mg/kg	7.7E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	1.5E-06	9.0E-06	mg/kg-day	2.0E-05	mg/kg-day	4.5E-01
				Aroclor-1260	2E-01	mg/kg	1.7E-06	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	3.4E-06	2.0E-05	mg/kg-day	2.0E-05	mg/kg-day	9.9E-01
				Dieldrin	2E-03	mg/kg	1.3E-08	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	2.2E-07	1.6E-07	mg/kg-day	5.0E-05	mg/kg-day	3.1E-03
				Antimony	8E-02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.0E-02
				Lead												
				Mercury	3E-01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-04	mg/kg-day	3.2E-01
				Selenium	7E-01	mg/kg	6.1E-06	mg/kg-day	N/A	N/A	N/A	7.1E-05	mg/kg-day	5.0E-03	mg/kg-day	1.4E-02
			Exp. Route Total								6E-06					2E+00
		Exposure Point Total									6E-06					2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	1.8E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	4.3E-08	2.1E-06	mg/kg-day	2.0E-03	mg/kg-day	1.0E-03
				4,4'-DDE	6E-02	mg/kg	5.2E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.8E-07	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				4,4'-DDT	5E-03	mg/kg	4.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.4E-08	4.9E-07	mg/kg-day	5.0E-04	mg/kg-day	9.8E-04
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03
				alpha-Chlordane	8E-03	mg/kg	7.5E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.6E-08	8.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.8E-03
				Aroclor-1248	8E-03	mg/kg	7.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-07	8.3E-07	mg/kg-day	2.0E-05	mg/kg-day	4.1E-02
				Aroclor-1254	1E-01	mg/kg	1.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.3E-06	1.3E-05	mg/kg-day	2.0E-05	mg/kg-day	6.7E-01
				Aroclor-1260	8E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-06	8.2E-06	mg/kg-day	2.0E-05	mg/kg-day	4.1E-01
				Dieldrin	2E-03	mg/kg	2.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	3.3E-07	2.4E-07	mg/kg-day	5.0E-05	mg/kg-day	4.8E-03
				Heptachlor epoxide	5E-04	mg/kg	4.8E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.3E-08	5.6E-08	mg/kg-day	1.3E-05	mg/kg-day	4.3E-03
				Arsenic	2E-01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.5E-02
				Lead												
				Mercury	2E-01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01
				Selenium	6E-01	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	6.5E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02
			Exp. Route Total								7E-06					1E+00
		Exposure Point Total									7E-06					1E+00
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.5.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	7.7E-09	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.8E-09	2.7E-07	mg/kg-day	2.0E-03	mg/kg-day	1.3E-04
				4,4'-DDE	2E-02	mg/kg	1.8E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	6.2E-09	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				4,4'-DDT	3E-03	mg/kg	3.2E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.1E-07	mg/kg-day	5.0E-04	mg/kg-day	2.3E-04
				Aldrin	3E-04	mg/kg	3.7E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	6.3E-09	1.3E-08	mg/kg-day	3.0E-05	mg/kg-day	4.3E-04
				alpha-Chlordane	6E-03	mg/kg	6.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.3E-09	2.3E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04
				Aroclor-1254	2E-02	mg/kg	2.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.5E-08	8.8E-07	mg/kg-day	2.0E-05	mg/kg-day	4.4E-02
				Aroclor-1260	6E-02	mg/kg	7.2E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.2E-08	2.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01
				delta-BHC	5E-04	mg/kg	6.2E-10	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.3E-05
				Dieldrin	2E-03	mg/kg	2.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	4.1E-08	9.0E-08	mg/kg-day	5.0E-05	mg/kg-day	1.8E-03
				Heptachlor epoxide	8E-04	mg/kg	9.8E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	8.9E-09	3.4E-08	mg/kg-day	1.3E-05	mg/kg-day	2.6E-03
				Antimony	9E-02	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	4.0E-04	mg/kg-day	9.6E-03
				Lead												
				Mercury	4E-01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01
				Selenium	6E-01	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.6E-03
			Exp. Route Total								2E-07					3E-01
		Exposure Point Total									2E-07					3E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	1.8E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	4.4E-09	6.4E-07	mg/kg-day	2.0E-03	mg/kg-day	3.2E-04
				4,4'-DDE	9E-02	mg/kg	9.9E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.4E-08	3.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				4,4'-DDT	8E-03	mg/kg	9.3E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.2E-09	3.3E-07	mg/kg-day	5.0E-04	mg/kg-day	6.5E-04
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04
				alpha-Chlordane	3E-03	mg/kg	2.9E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	1.0E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04
				Aroclor-1254	9E-02	mg/kg	9.9E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.9E-08	3.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.7E-01
				Aroclor-1260	2E-01	mg/kg	2.2E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.2E-07	7.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.8E-01
				Dieldrin	1E-03	mg/kg	1.7E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	2.7E-08	5.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.2E-03
				Antimony	8E-02	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.7E-03
				Lead												
				Mercury	3E-01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-04	mg/kg-day	1.2E-01
				Selenium	7E-01	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	5.0E-03	mg/kg-day	5.5E-03
			Exp. Route Total								4E-07					7E-01
		Exposure Point Total									4E-07					7E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.5.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion													
				4,4'-DDD	2E-02	mg/kg	2.3E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	5.5E-09	8.1E-07	mg/kg-day	2.0E-03	mg/kg-day	4.0E-04
				4,4'-DDE	6E-02	mg/kg	6.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	2.3E-08	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.8E-03
				4,4'-DDT	5E-03	mg/kg	5.4E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.8E-09	1.9E-07	mg/kg-day	5.0E-04	mg/kg-day	3.8E-04
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04
				alpha-Chlordane	8E-03	mg/kg	9.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	3.4E-09	3.4E-07	mg/kg-day	5.0E-04	mg/kg-day	6.7E-04
				Aroclor-1248	8E-03	mg/kg	9.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.1E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02
				Aroclor-1254	1E-01	mg/kg	1.5E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.5E-07	5.2E-06	mg/kg-day	2.0E-05	mg/kg-day	2.6E-01
				Aroclor-1260	8E-02	mg/kg	9.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.0E-08	3.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.6E-01
				Dieldrin	2E-03	mg/kg	2.5E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	3.9E-08	8.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.7E-03
				Heptachlor epoxide	5E-04	mg/kg	6.1E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	5.6E-09	2.1E-08	mg/kg-day	1.3E-05	mg/kg-day	1.6E-03
				Arsenic	2E-01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Lead												
				Mercury	1E-01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	1.0E-04	mg/kg-day	5.9E-02
				Selenium	6E-01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	5.0E-03	mg/kg-day	5.0E-03
			Exp. Route Total								6E-07					5E-01
		Exposure Point Total									6E-07					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	6.0E-08	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	1.4E-08	7.0E-07	mg/kg-day	2.0E-03	mg/kg-day	3.5E-04
				4,4'-DDE	2E-02	mg/kg	1.4E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	4.8E-08	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.5E-03
				4,4'-DDT	3E-03	mg/kg	2.5E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	8.6E-09	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	5.9E-04
				Aldrin	3E-04	mg/kg	2.9E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	4.9E-08	3.4E-08	mg/kg-day	3.0E-05	mg/kg-day	1.1E-03
				alpha-Chlordane	6E-03	mg/kg	5.2E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	1.8E-08	6.0E-07	mg/kg-day	5.0E-04	mg/kg-day	1.2E-03
				Aroclor-1254	2E-02	mg/kg	2.0E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	3.9E-07	2.3E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01
				Aroclor-1260	6E-02	mg/kg	5.6E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	1.1E-06	6.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.3E-01
				delta-BHC	6E-04	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04
				Dieldrin	2E-03	mg/kg	2.0E-08	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	3.2E-07	2.3E-07	mg/kg-day	5.0E-05	mg/kg-day	4.7E-03
				Heptachlor epoxide	8E-04	mg/kg	7.6E-09	mg/kg-day	9.1E+00	$(mg/kg-day)^{-1}$	6.9E-08	8.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.8E-03
				Antimony	9E-02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	4.0E-04	mg/kg-day	2.5E-02
				Lead												
				Mercury	4E-01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-04	mg/kg-day	3.8E-01
				Selenium	6E-01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02
			Exp. Route Total								2E-06					9E-01
		Exposure Point Total									2E-06					9E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	1.4E-07	mg/kg-day	2.4E-01	$(mg/kg-day)^{-1}$	3.4E-08	1.7E-06	mg/kg-day	2.0E-03	mg/kg-day	8.3E-04
				4,4'-DDE	9E-02	mg/kg	7.7E-07	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	2.6E-07	9.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
				4,4'-DDT	8E-03	mg/kg	7.2E-08	mg/kg-day	3.4E-01	$(mg/kg-day)^{-1}$	2.5E-08	8.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.7E-03
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	$(mg/kg-day)^{-1}$	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03
				alpha-Chlordane	3E-03	mg/kg	2.3E-08	mg/kg-day	3.5E-01	$(mg/kg-day)^{-1}$	8.0E-09	2.7E-07	mg/kg-day	5.0E-04	mg/kg-day	5.3E-04
				Aroclor-1254	9E-02	mg/kg	7.7E-07	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	1.5E-06	9.0E-06	mg/kg-day	2.0E-05	mg/kg-day	4.5E-01
				Aroclor-1260	2E-01	mg/kg	1.7E-06	mg/kg-day	2.0E+00	$(mg/kg-day)^{-1}$	3.4E-06	2.0E-05	mg/kg-day	2.0E-05	mg/kg-day	9.9E-01
				Dieldrin	2E-03	mg/kg	1.3E-08	mg/kg-day	1.6E+01	$(mg/kg-day)^{-1}$	2.2E-07	1.6E-07	mg/kg-day	5.0E-05	mg/kg-day	3.1E-03
				Antimony	8E-02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.0E-02
				Lead												
				Mercury	3E-01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-04	mg/kg-day	3.2E-01
				Selenium	7E-01	mg/kg	6.1E-06	mg/kg-day	N/A	N/A	N/A	7.1E-05	mg/kg-day	5.0E-03	mg/kg-day	1.4E-02
			Exp. Route Total								6E-06					2E+00
		Exposure Point Total									6E-06					2E+00

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TABLE 3-7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion													
				4,4'-DDD	2E-02	mg/kg	1.8E-07	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	4.3E-08	2.1E-06	mg/kg-day	2.0E-03	mg/kg-day	1.0E-03
				4,4'-DDE	6E-02	mg/kg	5.2E-07	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.8E-07	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				4,4'-DDT	5E-03	mg/kg	4.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.4E-08	4.9E-07	mg/kg-day	5.0E-04	mg/kg-day	9.8E-04
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03
				alpha-Chlordane	8E-03	mg/kg	7.5E-08	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.6E-08	8.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.8E-03
				Aroclor-1248	8E-03	mg/kg	7.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-07	8.3E-07	mg/kg-day	2.0E-05	mg/kg-day	4.1E-02
				Aroclor-1254	1E-01	mg/kg	1.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	2.3E-06	1.3E-05	mg/kg-day	2.0E-05	mg/kg-day	6.7E-01
				Aroclor-1260	8E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) $^{-1}$	1.4E-06	8.2E-06	mg/kg-day	2.0E-05	mg/kg-day	4.1E-01
				Dieldrin	2E-03	mg/kg	2.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	3.3E-07	2.4E-07	mg/kg-day	5.0E-05	mg/kg-day	4.8E-03
				Heptachlor epoxide	5E-04	mg/kg	4.8E-09	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	4.3E-08	5.6E-08	mg/kg-day	1.3E-05	mg/kg-day	4.3E-03
				Arsenic	2E-01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.5E-02
				Lead												
				Mercury	2E-01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01
				Selenium	6E-01	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	6.5E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02
			Exp. Route Total								7E-06					1E+00
		Exposure Point Total									7E-06					1E+00
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A			Total of Receptor Hazards Across All Media		N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.6.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion													
				4,4'-DDD	7E-03	mg/kg	7.7E-09	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	1.8E-09	2.7E-07	mg/kg-day	2.0E-03	mg/kg-day	1.3E-04
				4,4'-DDE	2E-02	mg/kg	1.8E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	6.2E-09	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				4,4'-DDT	3E-03	mg/kg	3.2E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.1E-09	1.1E-07	mg/kg-day	5.0E-04	mg/kg-day	2.3E-04
				Aldrin	3E-04	mg/kg	3.7E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	6.3E-09	1.3E-08	mg/kg-day	3.0E-05	mg/kg-day	4.3E-04
				alpha-Chlordane	6E-03	mg/kg	6.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	2.3E-09	2.3E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04
				Aroclor-1254	2E-02	mg/kg	2.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.5E-08	8.8E-07	mg/kg-day	2.0E-05	mg/kg-day	4.4E-02
				Aroclor-1260	6E-02	mg/kg	7.2E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	7.2E-08	2.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01
				delta-BHC	5E-04	mg/kg	6.2E-10	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.3E-05
				Dieldrin	2E-03	mg/kg	2.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	4.1E-08	9.0E-08	mg/kg-day	5.0E-05	mg/kg-day	1.8E-03
				Heptachlor epoxide	8E-04	mg/kg	9.8E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	8.9E-09	3.4E-08	mg/kg-day	1.3E-05	mg/kg-day	2.6E-03
				Antimony	9E-02	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	4.0E-04	mg/kg-day	9.6E-03
				Lead												
				Mercury	4E-01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01
				Selenium	6E-01	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.6E-03
			Exp. Route Total								2E-07					3E-01
		Exposure Point Total									2E-07					3E-01
		Fillet, Reaches 4 and 5	Ingestion													
				4,4'-DDD	2E-02	mg/kg	1.8E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	4.4E-09	6.4E-07	mg/kg-day	2.0E-03	mg/kg-day	3.2E-04
				4,4'-DDE	9E-02	mg/kg	9.9E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.4E-08	3.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				4,4'-DDT	8E-03	mg/kg	9.3E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	3.2E-09	3.3E-07	mg/kg-day	5.0E-04	mg/kg-day	6.5E-04
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04
				alpha-Chlordane	3E-03	mg/kg	2.9E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	1.0E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04
				Aroclor-1254	9E-02	mg/kg	9.9E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.9E-08	3.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.7E-01
				Aroclor-1260	2E-01	mg/kg	2.2E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	2.2E-07	7.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.8E-01
				Dieldrin	1E-03	mg/kg	1.7E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	2.7E-08	5.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.2E-03
				Antimony	8E-02	mg/kg	8.8E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.7E-03
				Lead												
				Mercury	3E-01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-04	mg/kg-day	1.2E-01
				Selenium	7E-01	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	5.0E-03	mg/kg-day	5.5E-03
			Exp. Route Total								4E-07					7E-01
		Exposure Point Total									4E-07					7E-01

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TABLE 3-7.6.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	2.3E-08	mg/kg-day	2.4E-01	(mg/kg-day) $^{-1}$	5.5E-09	8.1E-07	mg/kg-day	2.0E-03	mg/kg-day	4.0E-04
				4,4'-DDE	6E-02	mg/kg	6.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	2.3E-08	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.8E-03
				4,4'-DDT	5E-03	mg/kg	5.4E-09	mg/kg-day	3.4E-01	(mg/kg-day) $^{-1}$	1.8E-09	1.9E-07	mg/kg-day	5.0E-04	mg/kg-day	3.8E-04
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) $^{-1}$	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04
				alpha-Chlordane	8E-03	mg/kg	9.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) $^{-1}$	3.4E-09	3.4E-07	mg/kg-day	5.0E-04	mg/kg-day	6.7E-04
				Aroclor-1248	8E-03	mg/kg	9.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.1E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02
				Aroclor-1254	1E-01	mg/kg	1.5E-07	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	1.5E-07	5.2E-06	mg/kg-day	2.0E-05	mg/kg-day	2.6E-01
				Aroclor-1260	8E-02	mg/kg	9.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) $^{-1}$	9.0E-08	3.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.6E-01
				Dieldrin	2E-03	mg/kg	2.5E-09	mg/kg-day	1.6E+01	(mg/kg-day) $^{-1}$	3.9E-08	8.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.7E-03
				Heptachlor epoxide	5E-04	mg/kg	6.1E-10	mg/kg-day	9.1E+00	(mg/kg-day) $^{-1}$	5.6E-09	2.1E-08	mg/kg-day	1.3E-05	mg/kg-day	1.6E-03
				Arsenic	2E-01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.7E-07	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				Lead												
				Mercury	1E-01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	1.0E-04	mg/kg-day	5.9E-02
				Selenium	6E-01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	5.0E-03	mg/kg-day	5.0E-03
			Exp. Route Total								6E-07					5E-01
		Exposure Point Total									6E-07					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	AJRW (Reach 5)	Dermal													
				Chloroform	1E+00	ug/L	7.9E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-02	mg/kg-day	2.3E-05
				Tetrachloroethene	2E+00	ug/L	1.0E-06	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	5.6E-07	3.0E-06	mg/kg-day	1.0E-02	mg/kg-day	3.0E-04
				Chromium VI	9E-01	ug/L	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
			Exp. Route Total								6E-07					3E-03
		Exposure Point Total									6E-07					3E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	AJRW	Ingestion													
				Arsenic	2E+01	mg/kg	9.9E-07	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	7.7E-07	2.9E-06	mg/kg-day	5.9E-04	mg/kg-day	4.9E-03
				Lead												
				Manganese	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.1E-04
				Mercury	7E-01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
			Exp. Route Total								8E-07					6E-03
			Dermal													
				Arsenic	2E+01	mg/kg	2.4E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-07	6.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
			Exp. Route Total								4E-07					2E-03
		Exposure Point Total									1E-06					9E-03
	Exposure Medium Total										N/A					N/A
Soil	Surface Soil	AJRW	Ingestion													
				Arsenic	7E+01	mg/kg	3.5E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.3E-06	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	3.4E-02
				Chromium III	5E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	1.5E+00	mg/kg-day	5.4E-06
				Lead												
				Manganese	4E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	7.0E-02	mg/kg-day	7.7E-04
				Mercury	7E-01	mg/kg	3.4E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
				Vanadium	5E+01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.0E-03	mg/kg-day	8.0E-03
			Exp. Route Total								5E-06					4E-02
			Dermal													
				Arsenic	7E+01	mg/kg	8.4E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-06	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	8.2E-03
			Exp. Route Total								1E-06					8E-03
		Exposure Point Total									7E-06					5E-02
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-7.7.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	AJRW (Reach 5)	Dermal	Chloroform	1E+00	ug/L	5.4E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	1.0E-02	mg/kg-day	5.4E-06
				Tetrachloroethene	2E+00	ug/L	7.1E-08	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	3.8E-08	7.1E-07	mg/kg-day	1.0E-02	mg/kg-day	7.1E-05
				Chromium VI	9E-01	ug/L	4.9E-10	mg/kg-day	N/A	N/A	N/A	4.9E-09	mg/kg-day	7.5E-05	mg/kg-day	6.6E-05
				Manganese	3E+02	ug/L	9.3E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	2.8E-03	mg/kg-day	3.3E-04
			Exp. Route Total								4E-08					5E-04
		Exposure Point Total									4E-08					5E-04
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	AJRW	Ingestion	Arsenic	2E+01	mg/kg	4.8E-08	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-08	4.8E-07	mg/kg-day	5.9E-04	mg/kg-day	8.2E-04
				Lead												
				Manganese	2E+02	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	7.0E-02	mg/kg-day	8.4E-05
				Mercury	7E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	1.0E-04	mg/kg-day	1.8E-04
			Exp. Route Total								4E-08					1E-03
			Dermal	Arsenic	2E+01	mg/kg	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.5E-08	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.7E-04
			Exp. Route Total								3E-08					8E-04
		Exposure Point Total									7E-08					2E-03
	Exposure Medium Total										N/A					N/A
Soil	Surface Soil	AJRW	Ingestion	Arsenic	7E+01	mg/kg	1.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.6E-07	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.7E-03
				Chromium III	5E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.5E+00	mg/kg-day	9.1E-07
				Lead												
				Manganese	4E+02	mg/kg	9.0E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.3E-04
				Mercury	7E-01	mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	1.0E-04	mg/kg-day	1.7E-04
				Vanadium	5E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
			Exp. Route Total								3E-07					7E-03
			Dermal	Arsenic	7E+01	mg/kg	8.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	8.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.7E-03
			Exp. Route Total								1E-07					3E-03
		Exposure Point Total									4E-07					1E-02
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	AJRW (Reach 5)	Dermal													
				Chloroform	1E+00	ug/L	4.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-02	mg/kg-day	5.2E-05
				Tetrachloroethene	2E+00	ug/L	5.9E-07	mg/kg-day	5.4E-01	(mg/kg-day) $^{-1}$	3.2E-07	6.9E-06	mg/kg-day	1.0E-02	mg/kg-day	6.9E-04
				Chromium VI	9E-01	ug/L	5.8E-09	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	7.5E-05	mg/kg-day	9.0E-04
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03
			Exp. Route Total								3E-07					6E-03
		Exposure Point Total									3E-07					6E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	AJRW	Ingestion													
				Arsenic	2E+01	mg/kg	2.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.8E-06	2.7E-05	mg/kg-day	5.9E-04	mg/kg-day	4.6E-02
				Lead												
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	4.7E-03
				Mercury	7E-01	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
			Exp. Route Total								2E-06					6E-02
			Dermal													
				Arsenic	2E+01	mg/kg	3.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.8E-07	4.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.5E-02
			Exp. Route Total								6E-07					2E-02
		Exposure Point Total									2E-06					8E-02
	Exposure Medium Total										N/A					N/A
Soil	Surface Soil	AJRW	Ingestion													
				Arsenic	7E+01	mg/kg	8.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-05	9.6E-05	mg/kg-day	3.0E-04	mg/kg-day	3.2E-01
				Chromium III	5E+01	mg/kg	6.5E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.5E+00	mg/kg-day	5.1E-05
				Lead												
				Manganese	4E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	7.0E-02	mg/kg-day	7.2E-03
				Mercury	7E-01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	1.0E-04	mg/kg-day	9.4E-03
				Vanadium	5E+01	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	1.0E-03	mg/kg-day	7.4E-02
			Exp. Route Total								1E-05					4E-01
			Dermal													
				Arsenic	7E+01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.4E-02
			Exp. Route Total								2E-06					5E-02
		Exposure Point Total									1E-05					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-7.8.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	AJRW (Reach 5)	Dermal	Chloroform	1E+00	ug/L	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05
				Tetrachloroethene	2E+00	ug/L	4.6E-08	mg/kg-day	5.4E-01	$(mg/kg\text{-}day)^{-1}$	2.5E-08	1.6E-06	mg/kg-day	1.0E-02	mg/kg-day	1.6E-04
				Chromium VI	9E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	7.5E-05	mg/kg-day	1.5E-04
				Manganese	3E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.6E-04
			Exp. Route Total								2E-08					1E-03
		Exposure Point Total									2E-08					1E-03
	Exposure Medium Total										N/A					N/A
Sediment	Sediment	AJRW	Ingestion	Arsenic	2E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	9.9E-08	4.5E-06	mg/kg-day	5.9E-04	mg/kg-day	7.6E-03
				Lead												
				Manganese	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.9E-04
				Mercury	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03
			Exp. Route Total								1E-07					1E-02
			Dermal	Arsenic	2E+01	mg/kg	4.3E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.5E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.1E-03
			Exp. Route Total								6E-08					5E-03
		Exposure Point Total									2E-07					2E-02
	Exposure Medium Total										N/A					N/A
Soil	Surface Soil	AJRW	Ingestion	Arsenic	7E+01	mg/kg	4.6E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.8E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02
				Chromium III	5E+01	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.5E-06
				Lead												
				Manganese	4E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03
				Mercury	7E-01	mg/kg	4.5E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03
				Vanadium	5E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02
			Exp. Route Total								7E-07					7E-02
			Dermal	Arsenic	7E+01	mg/kg	1.5E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.3E-07	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02
			Exp. Route Total								2E-07					2E-02
		Exposure Point Total									9E-07					9E-02
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media					N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal													
				Arsenic	2E+01	ug/L	4.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.1E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.6E-04
				Chromium VI	1E+01	ug/L	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Manganese	6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.3E-03
				Mercury	6E-02	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	3.8E-10	mg/kg-day	2.1E-05	mg/kg-day	1.8E-05
			Exp. Route Total								7E-08					3E-03
		Exposure Point Total									7E-08					3E-03
		SW-05 - 52 days	Dermal													
				Arsenic	2E+01	ug/L	9.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	2.8E-07	mg/kg-day	3.0E-04	mg/kg-day	9.2E-04
				Chromium VI	1E+01	ug/L	7.6E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	3.0E-03
				Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03
				Mercury	6E-02	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	7.5E-10	mg/kg-day	2.1E-05	mg/kg-day	3.6E-05
			Exp. Route Total								1E-07					7E-03
		Exposure Point Total									1E-07					7E-03
		SW-05 - 78 days	Dermal													
				Arsenic	2E+01	ug/L	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.1E-07	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Manganese	6E+02	ug/L	3.9E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	2.8E-03	mg/kg-day	4.0E-03
				Mercury	6E-02	ug/L	3.9E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.4E-05
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									2E-07					1E-02
		SW-05 - 104 days	Dermal													
				Arsenic	2E+01	ug/L	1.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.8E-07	5.5E-07	mg/kg-day	3.0E-04	mg/kg-day	1.8E-03
				Chromium VI	1E+01	ug/L	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	7.5E-05	mg/kg-day	5.9E-03
				Manganese	6E+02	ug/L	5.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.4E-03
				Mercury	6E-02	ug/L	5.2E-10	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.2E-05
			Exp. Route Total								3E-07					1E-02
		Exposure Point Total									3E-07					1E-02
		SW-06 - 26 days	Dermal													
				Arsenic	1E+01	ug/L	2.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.3E-08	8.3E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
				Chromium VI	6E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	7.5E-05	mg/kg-day	9.8E-04
				Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									4E-08					2E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-06 - 78 days	Dermal													
				Arsenic	1E+01	ug/L	8.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-07	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	8.3E-04
				Chromium VI	6E+00	ug/L	7.5E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	2.9E-03
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03
			Exp. Route Total								1E-07					7E-03
		Exposure Point Total									1E-07					7E-03
		SW-06 - 104 days	Dermal													
				Arsenic	1E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-07	3.3E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium VI	6E+00	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03
				Manganese	6E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
			Exp. Route Total								2E-07					1E-02
		Exposure Point Total									2E-07					1E-02
		SW-07 - 26 days	Dermal													
				Arsenic	6E+00	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-08	3.7E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04
				Manganese	4E+02	ug/L	8.8E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	2.8E-03	mg/kg-day	9.1E-04
			Exp. Route Total								2E-08					1E-03
		Exposure Point Total									2E-08					1E-03
		SW-07 - 78 days	Dermal													
				Arsenic	6E+00	ug/L	3.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.7E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.7E-04
				Manganese	4E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03
			Exp. Route Total								6E-08					3E-03
		Exposure Point Total									6E-08					3E-03
		SW-08 - 78 days	Dermal													
				Arsenic	5E+00	ug/L	2.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.0E-08	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	2.6E-04
				Manganese	3E+02	ug/L	1.8E-06	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03
			Exp. Route Total								4E-08					2E-03
		Exposure Point Total									4E-08					2E-03
		SW-09 - 78 days	Dermal													
				Arsenic	3E+00	ug/L	1.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.4E-08	4.7E-08	mg/kg-day	3.0E-04	mg/kg-day	1.6E-04
				Manganese	6E+01	ug/L	3.4E-07	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	2.8E-03	mg/kg-day	3.6E-04
			Exp. Route Total								2E-08					5E-04
		Exposure Point Total									2E-08					5E-04

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TABLE 3-7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-10 - 39 days	Ingestion													
				Arsenic	2E+00	ug/L	4.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Mercury	2E-01	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	3.0E-04	mg/kg-day	5.5E-05
			Exp. Route Total								7E-08					5E-04
			Dermal													
				Arsenic	2E+00	ug/L	1.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-08	4.9E-08	mg/kg-day	3.0E-04	mg/kg-day	1.6E-04
				Mercury	2E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	6.0E-09	mg/kg-day	2.1E-05	mg/kg-day	2.9E-04
			Exp. Route Total								3E-08					4E-04
		Exposure Point Total									1E-07					1E-03
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media					N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.9.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal													
				Arsenic	2E+01	ug/L	6.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.0E-08	6.9E-08	mg/kg-day	3.0E-04	mg/kg-day	2.3E-04
				Chromium VI	1E+01	ug/L	5.5E-09	mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	7.5E-05	mg/kg-day	7.4E-04
				Manganese	6E+02	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.8E-03	mg/kg-day	6.7E-04
				Mercury	6E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06
			Exp. Route Total								1E-08					2E-03
		Exposure Point Total									1E-08					2E-03
		SW-05 - 78 days	Dermal													
				Arsenic	2E+01	ug/L	2.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.1E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04
				Chromium VI	1E+01	ug/L	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	7.5E-05	mg/kg-day	2.2E-03
				Manganese	6E+02	ug/L	5.6E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Mercury	6E-02	ug/L	5.6E-11	mg/kg-day	N/A	N/A	N/A	5.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.7E-05
			Exp. Route Total								3E-08					5E-03
		Exposure Point Total									3E-08					5E-03
		SW-06 - 26 days	Dermal													
				Arsenic	1E+01	ug/L	4.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.2E-09	4.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04
				Chromium VI	6E+00	ug/L	3.7E-09	mg/kg-day	N/A	N/A	N/A	3.7E-08	mg/kg-day	7.5E-05	mg/kg-day	4.9E-04
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04
			Exp. Route Total								6E-09					1E-03
		Exposure Point Total									6E-09					1E-03
		SW-06 - 78 days	Dermal													
				Arsenic	1E+01	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.9E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	4.2E-04
				Chromium VI	6E+00	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Manganese	6E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03
			Exp. Route Total								2E-08					4E-03
		Exposure Point Total									2E-08					4E-03
		SW-07 - 26 days	Dermal													
				Arsenic	6E+00	ug/L	1.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.8E-09	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05
				Manganese	4E+02	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	2.8E-03	mg/kg-day	4.6E-04
			Exp. Route Total								3E-09					5E-04
		Exposure Point Total									3E-09					5E-04
		SW-08 - 26 days	Dermal													
				Arsenic	5E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-09	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	4.4E-05
				Manganese	3E+02	ug/L	8.6E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	2.8E-03	mg/kg-day	3.1E-04
			Exp. Route Total								2E-09					4E-04
		Exposure Point Total									2E-09					4E-04

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TABLE 3-7.9.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-09 - 26 days	Dermal	Arsenic	3E+00	ug/L	7.8E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-09	7.8E-09	mg/kg-day	3.0E-04	mg/kg-day	2.6E-05
				Manganese	6E+01	ug/L	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.8E-03	mg/kg-day	5.9E-05
			Exp. Route Total								1E-09					9E-05
		Exposure Point Total									1E-09					9E-05
		SW-10 - 5 days	Ingestion	Arsenic	2E+00	ug/L	8.7E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-09	8.7E-09	mg/kg-day	3.0E-04	mg/kg-day	2.9E-05
				Mercury	2E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	3.0E-04	mg/kg-day	3.6E-06
			Exp. Route Total								1E-09					3E-05
			Dermal	Arsenic	2E+00	ug/L	3.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.7E-10	3.1E-09	mg/kg-day	3.0E-04	mg/kg-day	1.0E-05
				Mercury	2E-01	ug/L	3.8E-11	mg/kg-day	N/A	N/A	N/A	3.8E-10	mg/kg-day	2.1E-05	mg/kg-day	1.8E-05
			Exp. Route Total								5E-10					3E-05
		Exposure Point Total									2E-09					6E-05
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

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TABLE 3-7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal													
				Arsenic	2E+01	ug/L	2.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-08	3.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium VI	1E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.4E-03
				Manganese	6E+02	ug/L	7.4E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03
				Mercury	6E-02	ug/L	7.4E-11	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
			Exp. Route Total								4E-08					8E-03
		Exposure Point Total									4E-08					8E-03
		SW-05 - 52 days	Dermal													
				Arsenic	2E+01	ug/L	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.1E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Chromium VI	1E+01	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	7.5E-05	mg/kg-day	6.8E-03
				Manganese	6E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	2.8E-03	mg/kg-day	6.2E-03
				Mercury	6E-02	ug/L	1.5E-10	mg/kg-day	N/A	N/A	N/A	1.7E-09	mg/kg-day	2.1E-05	mg/kg-day	8.2E-05
			Exp. Route Total								8E-08					2E-02
		Exposure Point Total									8E-08					2E-02
		SW-05 - 78 days	Dermal													
				Arsenic	2E+01	ug/L	8.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	9.5E-07	mg/kg-day	3.0E-04	mg/kg-day	3.2E-03
				Chromium VI	1E+01	ug/L	6.5E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Manganese	6E+02	ug/L	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.8E-03	mg/kg-day	9.3E-03
				Mercury	6E-02	ug/L	2.2E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
			Exp. Route Total								1E-07					2E-02
		Exposure Point Total									1E-07					2E-02
		SW-05 - 104 days	Dermal													
				Arsenic	2E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.2E-03
				Chromium VI	1E+01	ug/L	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.5E-05	mg/kg-day	1.4E-02
				Manganese	6E+02	ug/L	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	2.8E-03	mg/kg-day	1.2E-02
				Mercury	6E-02	ug/L	3.0E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									2E-07					3E-02
		SW-06 - 26 days	Dermal													
				Arsenic	1E+01	ug/L	1.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.5E-08	1.9E-07	mg/kg-day	3.0E-04	mg/kg-day	6.4E-04
				Chromium VI	6E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	7.5E-05	mg/kg-day	2.2E-03
				Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03
			Exp. Route Total								2E-08					6E-03
		Exposure Point Total									2E-08					6E-03

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TABLE 3-7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-06 - 78 days	Dermal													
				Arsenic	1E+01	ug/L	4.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.4E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				Chromium VI	6E+00	ug/L	4.3E-08	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	7.5E-05	mg/kg-day	6.7E-03
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.2E-03
			Exp. Route Total								7E-08					2E-02
		Exposure Point Total									7E-08					2E-02
		SW-06 - 104 days	Dermal													
				Arsenic	1E+01	ug/L	6.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.8E-08	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Chromium VI	6E+00	ug/L	5.8E-08	mg/kg-day	N/A	N/A	N/A	6.7E-07	mg/kg-day	7.5E-05	mg/kg-day	9.0E-03
				Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
			Exp. Route Total								1E-07					2E-02
		Exposure Point Total									1E-07					2E-02
		SW-07 - 26 days	Dermal													
				Arsenic	6E+00	ug/L	7.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-08	8.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
				Manganese	4E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	2.8E-03	mg/kg-day	2.1E-03
			Exp. Route Total								1E-08					2E-03
		Exposure Point Total									1E-08					2E-03
		SW-07 - 78 days	Dermal													
				Arsenic	6E+00	ug/L	2.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.5E-04
				Manganese	4E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.3E-03
			Exp. Route Total								3E-08					7E-03
		Exposure Point Total									3E-08					7E-03
		SW-08 - 78 days	Dermal													
				Arsenic	5E+00	ug/L	1.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-08	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	6.0E-04
				Manganese	3E+02	ug/L	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.2E-03
			Exp. Route Total								2E-08					5E-03
		Exposure Point Total									2E-08					5E-03
		SW-09 - 78 days	Dermal													
				Arsenic	3E+00	ug/L	9.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.6E-04
				Manganese	6E+01	ug/L	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.8E-03	mg/kg-day	8.1E-04
			Exp. Route Total								1E-08					1E-03
		Exposure Point Total									1E-08					1E-03

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TABLE 3-7.10.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-10 - 39 days	Ingestion													
				Arsenic	2E+00	ug/L	5.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.2E-08	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Mercury	2E-01	ug/L	6.7E-09	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	2.6E-04
			Exp. Route Total								8E-08					2E-03
			Dermal													
				Arsenic	2E+00	ug/L	7.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.1E-08	8.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
				Mercury	2E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	2.1E-05	mg/kg-day	4.9E-04
			Exp. Route Total								1E-08					8E-04
		Exposure Point Total									9E-08					3E-03
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media					N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.10.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal													
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.8E-09	1.6E-07	mg/kg-day	3.0E-04	mg/kg-day	5.3E-04
				Chromium VI	1E+01	ug/L	3.6E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03
				Manganese	6E+02	ug/L	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.5E-03
				Mercury	6E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.1E-05
			Exp. Route Total								7E-09					4E-03
		Exposure Point Total									7E-09					4E-03
		SW-05 - 78 days	Dermal													
				Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.0E-08	4.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
				Chromium VI	1E+01	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	7.5E-05	mg/kg-day	5.1E-03
				Manganese	6E+02	ug/L	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03
				Mercury	6E-02	ug/L	3.7E-11	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.1E-05	mg/kg-day	6.2E-05
			Exp. Route Total								2E-08					1E-02
		Exposure Point Total									2E-08					1E-02
		SW-06 - 26 days	Dermal													
				Arsenic	1E+01	ug/L	2.7E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.1E-09	9.5E-08	mg/kg-day	3.0E-04	mg/kg-day	3.2E-04
				Chromium VI	6E+00	ug/L	2.4E-09	mg/kg-day	N/A	N/A	N/A	8.4E-08	mg/kg-day	7.5E-05	mg/kg-day	1.1E-03
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
			Exp. Route Total								4E-09					3E-03
		Exposure Point Total									4E-09					3E-03
		SW-06 - 78 days	Dermal													
				Arsenic	1E+01	ug/L	8.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-08	2.9E-07	mg/kg-day	3.0E-04	mg/kg-day	9.5E-04
				Chromium VI	6E+00	ug/L	7.2E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.4E-03
				Manganese	6E+02	ug/L	3.3E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.1E-03
			Exp. Route Total								1E-08					8E-03
		Exposure Point Total									1E-08					8E-03
		SW-07 - 26 days	Dermal													
				Arsenic	6E+00	ug/L	1.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-09	4.3E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04
				Manganese	4E+02	ug/L	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.0E-03
			Exp. Route Total								2E-09					1E-03
		Exposure Point Total									2E-09					1E-03
		SW-08 - 26 days	Dermal													
				Arsenic	5E+00	ug/L	8.6E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-09	3.0E-08	mg/kg-day	3.0E-04	mg/kg-day	1.0E-04
				Manganese	3E+02	ug/L	5.6E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.8E-03	mg/kg-day	7.0E-04
			Exp. Route Total								1E-09					8E-04
		Exposure Point Total									1E-09					8E-04

US EPA ARCHIVE DOCUMENT

TABLE 3-7.10.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-09 - 26 days	Dermal	Arsenic	3E+00	ug/L	5.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.7E-10	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	6.0E-05
				Manganese	6E+01	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	2.8E-03	mg/kg-day	1.4E-04
			Exp. Route Total								8E-10					2E-04
		Exposure Point Total									8E-10					2E-04
		SW-10 - 5 days	Ingestion	Arsenic	2E+00	ug/L	1.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.7E-09	4.1E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04
				Mercury	2E-01	ug/L	1.4E-10	mg/kg-day	N/A	N/A	N/A	5.0E-09	mg/kg-day	3.0E-04	mg/kg-day	1.7E-05
			Exp. Route Total								2E-09					2E-04
			Dermal	Arsenic	2E+00	ug/L	1.5E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.3E-10	5.4E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05
				Mercury	2E-01	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	6.6E-10	mg/kg-day	2.1E-05	mg/kg-day	3.1E-05
			Exp. Route Total								2E-10					5E-05
		Exposure Point Total									2E-09					2E-04
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A				Total of Receptor Hazards Across All Media	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.11.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Storm Event Surface Water	SW-05	Dermal													
				Antimony	3E+00	ug/L	8.6E-09	mg/kg-day	N/A	N/A	N/A	2.5E-08	mg/kg-day	6.0E-05	mg/kg-day	4.2E-04
				Arsenic	2E+01	ug/L	6.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.2E-08	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	5.9E-04
				Chromium VI	1E+01	ug/L	6.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	7.5E-05	mg/kg-day	2.6E-03
				Manganese	4E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.3E-03
				Mercury	9E-02	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	8.5E-10	mg/kg-day	2.1E-05	mg/kg-day	4.0E-05
			Exp. Route Total								9E-08					5E-03
		Exposure Point Total									9E-08					5E-03
		SW-06	Dermal													
				Antimony	3E+00	ug/L	9.0E-09	mg/kg-day	N/A	N/A	N/A	2.6E-08	mg/kg-day	6.0E-05	mg/kg-day	4.4E-04
				Arsenic	2E+01	ug/L	7.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.2E-07	2.2E-07	mg/kg-day	3.0E-04	mg/kg-day	7.5E-04
				Chromium VI	2E+01	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	7.5E-05	mg/kg-day	5.1E-03
				Lead												
				Manganese	4E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
				Mercury	2E-01	ug/L	5.1E-10	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.1E-05
			Exp. Route Total								1E-07					8E-03
		Exposure Point Total									1E-07					8E-03
		SW-07	Dermal													
				Arsenic	1E+01	ug/L	4.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.7E-08	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.3E-04
				Chromium VI	1E+01	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.4E-03
				Lead												
				Manganese	2E+02	ug/L	7.7E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.8E-03	mg/kg-day	8.1E-04
				Mercury	8E-02	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	7.5E-10	mg/kg-day	2.1E-05	mg/kg-day	3.6E-05
			Exp. Route Total								7E-08					4E-03
		Exposure Point Total									7E-08					4E-03
		SW-08	Dermal													
				Antimony	1E+00	ug/L	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	6.0E-05	mg/kg-day	2.3E-04
				Arsenic	3E+01	ug/L	8.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-07	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	8.3E-04
				Chromium VI	5E+01	ug/L	3.1E-07	mg/kg-day	N/A	N/A	N/A	9.0E-07	mg/kg-day	7.5E-05	mg/kg-day	1.2E-02
				Lead												
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	2.8E-03	mg/kg-day	2.1E-03
				Mercury	2E-01	ug/L	5.6E-10	mg/kg-day	N/A	N/A	N/A	1.6E-09	mg/kg-day	2.1E-05	mg/kg-day	7.7E-05
				Thallium	2E+00	ug/L	5.9E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	8.0E-05	mg/kg-day	2.1E-04
			Exp. Route Total								1E-07					2E-02
		Exposure Point Total									1E-07					2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.11.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	6.0E-05	mg/kg-day	2.8E-04
				Arsenic	4E+00	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.8E-08	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04
			Exp. Route Total								2E-08					4E-04
		Exposure Point Total									2E-08					4E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	6.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	9.5E-09	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05
				Mercury	8E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	7.0E-10	mg/kg-day	2.1E-05	mg/kg-day	3.4E-05
			Exp. Route Total								1E-08					1E-04
		Exposure Point Total									1E-08					1E-04
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A			Total of Receptor Hazards Across All Media		N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.11.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Storm Event Surface Water	SW-05	Dermal													
				Antimony	3E+00	ug/L	6.3E-10	mg/kg-day	N/A	N/A	N/A	6.3E-09	mg/kg-day	6.0E-05	mg/kg-day	1.0E-04
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	6.7E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Chromium VI	1E+01	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.4E-04
				Manganese	4E+02	ug/L	9.4E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	2.8E-03	mg/kg-day	3.3E-04
				Mercury	9E-02	ug/L	2.1E-11	mg/kg-day	N/A	N/A	N/A	2.1E-10	mg/kg-day	2.1E-05	mg/kg-day	1.0E-05
			Exp. Route Total								7E-09					1E-03
		Exposure Point Total									7E-09					1E-03
		SW-06	Dermal													
				Antimony	3E+00	ug/L	6.6E-10	mg/kg-day	N/A	N/A	N/A	6.6E-09	mg/kg-day	6.0E-05	mg/kg-day	1.1E-04
				Arsenic	2E+01	ug/L	5.6E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	8.4E-09	5.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.9E-04
				Chromium VI	2E+01	ug/L	9.5E-09	mg/kg-day	N/A	N/A	N/A	9.5E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-03
				Lead												
				Manganese	4E+02	ug/L	9.6E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	2.8E-03	mg/kg-day	3.4E-04
				Mercury	8E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06
			Exp. Route Total								8E-09					2E-03
		Exposure Point Total									8E-09					2E-03
		SW-07	Dermal													
				Arsenic	1E+01	ug/L	3.2E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.9E-09	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04
				Chromium VI	1E+01	ug/L	4.5E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	7.5E-05	mg/kg-day	5.9E-04
				Lead												
				Manganese	2E+02	ug/L	5.6E-08	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.8E-03	mg/kg-day	2.0E-04
				Mercury	8E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06
			Exp. Route Total								5E-09					9E-04
		Exposure Point Total									5E-09					9E-04
		SW-08	Dermal													
				Antimony	1E+00	ug/L	3.4E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	6.0E-05	mg/kg-day	5.7E-05
				Arsenic	3E+01	ug/L	6.2E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	9.3E-09	6.2E-08	mg/kg-day	3.0E-04	mg/kg-day	2.1E-04
				Chromium VI	5E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	3.0E-03
				Lead												
				Manganese	6E+02	ug/L	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.8E-03	mg/kg-day	5.2E-04
				Mercury	2E-01	ug/L	4.1E-11	mg/kg-day	N/A	N/A	N/A	4.1E-10	mg/kg-day	2.1E-05	mg/kg-day	1.9E-05
				Thallium	2E+00	ug/L	4.3E-10	mg/kg-day	N/A	N/A	N/A	4.3E-09	mg/kg-day	8.0E-05	mg/kg-day	5.4E-05
			Exp. Route Total								9E-09					4E-03
		Exposure Point Total									9E-09					4E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.11.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	6.0E-05	mg/kg-day	6.9E-05
				Arsenic	4E+00	ug/L	9.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.3E-09	9.0E-09	mg/kg-day	3.0E-04	mg/kg-day	3.0E-05
			Exp. Route Total								1E-09					1E-04
		Exposure Point Total									1E-09					1E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	4.6E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.9E-10	4.6E-09	mg/kg-day	3.0E-04	mg/kg-day	1.5E-05
				Mercury	8E-02	ug/L	1.8E-11	mg/kg-day	N/A	N/A	N/A	1.8E-10	mg/kg-day	2.1E-05	mg/kg-day	8.4E-06
			Exp. Route Total								7E-10					2E-05
		Exposure Point Total									7E-10					2E-05
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
									Total of Receptor Risks Across All Media		N/A			Total of Receptor Hazards Across All Media		N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.12.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Storm Event Surface Water	SW-05	Dermal													
				Antimony	3E+00	ug/L	4.9E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	6.0E-05	mg/kg-day	9.6E-04
				Arsenic	2E+01	ug/L	3.5E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	5.3E-08	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Chromium VI	1E+01	ug/L	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	7.5E-05	mg/kg-day	5.9E-03
				Manganese	4E+02	ug/L	7.4E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03
				Mercury	9E-02	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	1.9E-09	mg/kg-day	2.1E-05	mg/kg-day	9.2E-05
			Exp. Route Total								5E-08					1E-02
		Exposure Point Total									5E-08					1E-02
		SW-06	Dermal													
				Antimony	3E+00	ug/L	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.0E-08	mg/kg-day	6.0E-05	mg/kg-day	1.0E-03
				Arsenic	2E+01	ug/L	4.4E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	6.6E-08	5.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.7E-03
				Chromium VI	2E+01	ug/L	7.5E-08	mg/kg-day	N/A	N/A	N/A	8.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.2E-02
				Lead												
				Manganese	4E+02	ug/L	7.6E-07	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.8E-03	mg/kg-day	3.2E-03
				Mercury	2E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
			Exp. Route Total								7E-08					2E-02
		Exposure Point Total									7E-08					2E-02
		SW-07	Dermal													
				Arsenic	1E+01	ug/L	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	3.8E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.9E-04
				Chromium VI	1E+01	ug/L	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	7.5E-05	mg/kg-day	5.4E-03
				Lead												
				Manganese	2E+02	ug/L	4.4E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03
				Mercury	8E-02	ug/L	1.5E-10	mg/kg-day	N/A	N/A	N/A	1.7E-09	mg/kg-day	2.1E-05	mg/kg-day	8.2E-05
			Exp. Route Total								4E-08					8E-03
		Exposure Point Total									4E-08					8E-03
		SW-08	Dermal													
				Antimony	1E+00	ug/L	2.7E-09	mg/kg-day	N/A	N/A	N/A	3.1E-08	mg/kg-day	6.0E-05	mg/kg-day	5.2E-04
				Arsenic	3E+01	ug/L	4.9E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	7.3E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				Chromium VI	5E+01	ug/L	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.5E-05	mg/kg-day	2.7E-02
				Lead												
				Manganese	6E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03
				Mercury	2E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	3.7E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04
				Thallium	2E+00	ug/L	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	8.0E-05	mg/kg-day	4.9E-04
			Exp. Route Total								7E-08					4E-02
		Exposure Point Total									7E-08					4E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.12.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	6.0E-05	mg/kg-day	6.3E-04
				Arsenic	4E+00	ug/L	7.1E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.1E-08	8.2E-08	mg/kg-day	3.0E-04	mg/kg-day	2.7E-04
			Exp. Route Total								1E-08					9E-04
		Exposure Point Total									1E-08					9E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	3.6E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	5.5E-09	4.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04
				Mercury	8E-02	ug/L	1.4E-10	mg/kg-day	N/A	N/A	N/A	1.6E-09	mg/kg-day	2.1E-05	mg/kg-day	7.7E-05
			Exp. Route Total								5E-09					2E-04
		Exposure Point Total									5E-09					2E-04
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
										Total of Receptor Risks Across All Media	N/A			Total of Receptor Hazards Across All Media		N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.12.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Storm Event Surface Water	SW-05	Dermal													
				Antimony	3E+00	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	6.0E-05	mg/kg-day	2.4E-04
				Arsenic	2E+01	ug/L	2.9E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.4E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.4E-04
				Chromium VI	1E+01	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Manganese	4E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.8E-03	mg/kg-day	7.7E-04
				Mercury	9E-02	ug/L	1.4E-11	mg/kg-day	N/A	N/A	N/A	4.8E-10	mg/kg-day	2.1E-05	mg/kg-day	2.3E-05
			Exp. Route Total								4E-09					3E-03
		Exposure Point Total									4E-09					3E-03
		SW-06	Dermal													
				Antimony	3E+00	ug/L	4.3E-10	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	6.0E-05	mg/kg-day	2.5E-04
				Arsenic	2E+01	ug/L	3.7E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	5.5E-09	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.3E-04
				Chromium VI	2E+01	ug/L	6.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	2.9E-03
				Lead												
				Manganese	4E+02	ug/L	6.3E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.8E-03	mg/kg-day	7.9E-04
				Mercury	8E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.0E-05
			Exp. Route Total								5E-09					4E-03
		Exposure Point Total									5E-09					4E-03
		SW-07	Dermal													
				Arsenic	1E+01	ug/L	2.1E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	3.2E-09	7.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Chromium VI	1E+01	ug/L	2.9E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03
				Lead												
				Manganese	2E+02	ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	2.8E-03	mg/kg-day	4.6E-04
				Mercury	8E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.0E-05
			Exp. Route Total								3E-09					2E-03
		Exposure Point Total									3E-09					2E-03
		SW-08	Dermal													
				Antimony	1E+00	ug/L	2.2E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	6.0E-05	mg/kg-day	1.3E-04
				Arsenic	3E+01	ug/L	4.1E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	6.1E-09	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.8E-04
				Chromium VI	5E+01	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	7.5E-05	mg/kg-day	6.8E-03
				Lead												
				Manganese	6E+02	ug/L	9.5E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03
				Mercury	2E-01	ug/L	2.7E-11	mg/kg-day	N/A	N/A	N/A	9.3E-10	mg/kg-day	2.1E-05	mg/kg-day	4.4E-05
				Thallium	2E+00	ug/L	2.8E-10	mg/kg-day	N/A	N/A	N/A	9.9E-09	mg/kg-day	8.0E-05	mg/kg-day	1.2E-04
			Exp. Route Total								6E-09					9E-03
		Exposure Point Total									6E-09					9E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-7.12.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	2.7E-10	mg/kg-day	N/A	N/A	N/A	9.5E-09	mg/kg-day	6.0E-05	mg/kg-day	1.6E-04
				Arsenic	4E+00	ug/L	5.9E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.8E-10	2.1E-08	mg/kg-day	3.0E-04	mg/kg-day	6.9E-05
			Exp. Route Total								9E-10					2E-04
		Exposure Point Total									9E-10					2E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	3.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.6E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.5E-05
				Mercury	8E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.0E-10	mg/kg-day	2.1E-05	mg/kg-day	1.9E-05
			Exp. Route Total								5E-10					5E-05
		Exposure Point Total									5E-10					5E-05
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
									Total of Receptor Risks Across All Media		N/A			Total of Receptor Hazards Across All Media		N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-7.13.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Sediment Cores	SC05	Ingestion													
				Antimony	1E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	4.0E-04	mg/kg-day	3.9E-02
				Arsenic	9E+02	mg/kg	3.4E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	2.6E-05	1.2E-03	mg/kg-day	5.9E-04	mg/kg-day	2.0E+00
				Cadmium	2E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.0E-03	mg/kg-day	3.0E-02
				Copper	2E+03	mg/kg	6.0E-05	mg/kg-day	N/A	N/A	N/A	2.1E-03	mg/kg-day	3.0E-02	mg/kg-day	7.0E-02
				Lead												
				Manganese	4E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.1E-04	mg/kg-day	7.0E-02	mg/kg-day	7.3E-03
				Mercury	2E+01	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.0E-04	mg/kg-day	3.0E-01
				Vanadium	6E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.0E-03	mg/kg-day	7.6E-02
			Exp. Route Total								3E-05					3E+00
			Dermal													
				Arsenic	9E+02	mg/kg	3.3E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.0E-06	1.2E-04	mg/kg-day	3.0E-04	mg/kg-day	3.9E-01
				Cadmium	2E+01	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02
			Exp. Route Total								5E-06					4E-01
		Exposure Point Total									3E-05					3E+00
		SC06	Ingestion													
				Arsenic	2E+03	mg/kg	6.3E-05	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	4.9E-05	2.2E-03	mg/kg-day	5.9E-04	mg/kg-day	3.8E+00
				Cadmium	4E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	1.0E-03	mg/kg-day	5.7E-02
				Copper	1E+03	mg/kg	3.5E-05	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.1E-02
				Lead												
				Manganese	2E+03	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	7.0E-02	mg/kg-day	3.1E-02
				Mercury	8E+00	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-04	mg/kg-day	1.1E-01
				Vanadium	6E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	1.0E-03	mg/kg-day	8.4E-02
				Zinc	4E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	5.5E-03	mg/kg-day	3.0E-01	mg/kg-day	1.8E-02
			Exp. Route Total								5E-05					4E+00
			Dermal													
				Arsenic	2E+03	mg/kg	6.3E-06	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	9.4E-06	2.2E-04	mg/kg-day	3.0E-04	mg/kg-day	7.3E-01
				Cadmium	4E+01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.5E-05	mg/kg-day	7.5E-02
			Exp. Route Total								9E-06					8E-01
		Exposure Point Total									6E-05					5E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-7.13.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC07	Ingestion													
				Arsenic	4E+02	mg/kg	1.5E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.1E-05	5.2E-04	mg/kg-day	5.9E-04	mg/kg-day	8.8E-01
				Cadmium	2E+01	mg/kg	8.3E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02
				Copper	8E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-02	mg/kg-day	3.6E-02
				Lead												
				Manganese	2E+03	mg/kg	8.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-03	mg/kg-day	7.0E-02	mg/kg-day	4.3E-02
				Mercury	3E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	1.0E-04	mg/kg-day	4.4E-02
				Vanadium	7E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	1.0E-03	mg/kg-day	8.7E-02
				Zinc	4E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	5.7E-03	mg/kg-day	3.0E-01	mg/kg-day	1.9E-02
			Exp. Route Total								1E-05					1E+00
			Dermal													
				Arsenic	4E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	2.2E-06	5.2E-05	mg/kg-day	3.0E-04	mg/kg-day	1.7E-01
				Cadmium	2E+01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.8E-02
			Exp. Route Total								2E-06					2E-01
		Exposure Point Total									1E-05					1E+00
		SC08	Ingestion													
				Arsenic	1E+03	mg/kg	4.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.6E-05	1.6E-03	mg/kg-day	5.9E-04	mg/kg-day	2.8E+00
				Cadmium	2E+01	mg/kg	8.4E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02
				Copper	1E+03	mg/kg	5.3E-05	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-02	mg/kg-day	6.1E-02
				Lead												
				Manganese	5E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	6.8E-04	mg/kg-day	7.0E-02	mg/kg-day	9.7E-03
				Mercury	1E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-04	mg/kg-day	1.8E-01
				Vanadium	7E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	1.0E-03	mg/kg-day	8.7E-02
				Zinc	2E+03	mg/kg	8.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-03	mg/kg-day	3.0E-01	mg/kg-day	1.0E-02
			Exp. Route Total								4E-05					3E+00
			Dermal													
				Arsenic	1E+03	mg/kg	4.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.9E-06	1.6E-04	mg/kg-day	3.0E-04	mg/kg-day	5.4E-01
				Cadmium	2E+01	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02
			Exp. Route Total								7E-06					6E-01
		Exposure Point Total									4E-05					4E+00
		SC09	Ingestion													
				Arsenic	9E+01	mg/kg	3.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.6E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.0E-01
				Mercury	1E+00	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-04	mg/kg-day	1.6E-02
			Exp. Route Total								3E-06					2E-01
			Dermal													
				Arsenic	9E+01	mg/kg	3.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.9E-07	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	3.8E-02
			Exp. Route Total								5E-07					4E-02
		Exposure Point Total									3E-06					3E-01

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TABLE 3-7.13.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC10	Ingestion	Arsenic	6E+01	mg/kg	2.2E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	1.7E-06	7.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
			Exp. Route Total								2E-06					1E-01
			Dermal	Arsenic	6E+01	mg/kg	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	3.3E-07	7.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.5E-02
			Exp. Route Total								3E-07					3E-02
		Exposure Point Total									2E-06					2E-01
		SC11	Ingestion	Arsenic	1E+02	mg/kg	4.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.2E-06	1.4E-04	mg/kg-day	5.9E-04	mg/kg-day	2.4E-01
				Cadmium	7E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	9.4E-06	mg/kg-day	1.0E-03	mg/kg-day	9.4E-03
				Copper	3E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.4E-02
				Lead												
				Manganese	6E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	8.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.1E-02
				Mercury	2E+00	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	1.0E-04	mg/kg-day	2.8E-02
				Vanadium	7E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.1E-05	mg/kg-day	1.0E-03	mg/kg-day	9.1E-02
			Exp. Route Total								3E-06					4E-01
			Dermal	Arsenic	1E+02	mg/kg	4.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.1E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.7E-02
				Cadmium	7E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.2E-02
			Exp. Route Total								6E-07					6E-02
		Exposure Point Total									4E-06					5E-01
		SC12	Ingestion	Arsenic	1E+02	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.7E-06	1.7E-04	mg/kg-day	5.9E-04	mg/kg-day	2.9E-01
				Cadmium	1E+01	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02
				Copper	4E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.8E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02
				Lead												
				Manganese	9E+02	mg/kg	3.4E-05	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	7.0E-02	mg/kg-day	1.7E-02
				Mercury	3E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-04	mg/kg-day	3.5E-02
				Vanadium	8E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	1.0E-03	mg/kg-day	1.1E-01
			Exp. Route Total								4E-06					5E-01
			Dermal	Arsenic	1E+02	mg/kg	4.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	7.2E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02
				Cadmium	1E+01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02
			Exp. Route Total								7E-07					8E-02
		Exposure Point Total									4E-06					6E-01

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TABLE 3-7.13.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC13	Ingestion													
				Arsenic	1E+02	mg/kg	4.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-06	1.5E-04	mg/kg-day	5.9E-04	mg/kg-day	2.6E-01
				Cadmium	1E+01	mg/kg	4.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Copper	5E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	6.0E-04	mg/kg-day	3.0E-02	mg/kg-day	2.0E-02
				Lead												
				Manganese	3E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	7.0E-02	mg/kg-day	6.5E-03
				Mercury	2E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-04	mg/kg-day	2.7E-02
				Vanadium	8E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.0E-03	mg/kg-day	1.0E-01
				Zinc	3E+03	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
			Exp. Route Total								3E-06					4E-01
			Dermal													
				Arsenic	1E+02	mg/kg	4.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.5E-07	1.5E-05	mg/kg-day	3.0E-04	mg/kg-day	5.1E-02
				Cadmium	1E+01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02
			Exp. Route Total								7E-07					7E-02
		Exposure Point Total									4E-06					5E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media		N/A

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TABLE 3-7.13.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Sediment Cores	SC05	Ingestion													
				Antimony	1E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	4.0E-04	mg/kg-day	1.9E-02
				Arsenic	5E+02	mg/kg	5.0E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	3.8E-06	3.5E-04	mg/kg-day	5.9E-04	mg/kg-day	5.9E-01
				Cadmium	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Copper	1E+03	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	6.4E-04	mg/kg-day	3.0E-02	mg/kg-day	2.1E-02
				Lead												
				Manganese	4E+02	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.3E-03
				Mercury	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01
				Vanadium	6E+01	mg/kg	5.4E-07	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-03	mg/kg-day	3.8E-02
			Exp. Route Total								4E-06					8E-01
			Dermal													
				Arsenic	5E+02	mg/kg	4.9E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.4E-07	3.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Cadmium	2E+01	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02
			Exp. Route Total								7E-07					1E-01
		Exposure Point Total									5E-06					1E+00
		SC06	Ingestion													
				Arsenic	9E+02	mg/kg	8.0E-06	mg/kg-day	7.7E-01	$(mg/kg\text{-}day)^{-1}$	6.1E-06	5.6E-04	mg/kg-day	5.9E-04	mg/kg-day	9.5E-01
				Cadmium	4E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-03	mg/kg-day	2.8E-02
				Copper	5E+02	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.1E-02
				Lead												
				Manganese	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.5E-02
				Mercury	5E+00	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	1.0E-04	mg/kg-day	3.1E-02
				Vanadium	4E+01	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02
				Zinc	4E+03	mg/kg	3.9E-05	mg/kg-day	N/A	N/A	N/A	2.7E-03	mg/kg-day	3.0E-01	mg/kg-day	9.1E-03
			Exp. Route Total								6E-06					1E+00
			Dermal													
				Arsenic	9E+02	mg/kg	7.9E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06	5.5E-05	mg/kg-day	3.0E-04	mg/kg-day	1.8E-01
				Cadmium	4E+01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	2.5E-05	mg/kg-day	3.7E-02
			Exp. Route Total								1E-06					2E-01
		Exposure Point Total									7E-06					1E+00

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TABLE 3-7.13.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC07	Ingestion													
				Arsenic	4E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.9E-06	2.6E-04	mg/kg-day	5.9E-04	mg/kg-day	4.4E-01
				Cadmium	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02
				Copper	8E+02	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.8E-02
				Lead												
				Manganese	2E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	7.0E-02	mg/kg-day	2.1E-02
				Mercury	3E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-04	mg/kg-day	2.2E-02
				Vanadium	7E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	1.0E-03	mg/kg-day	4.3E-02
				Zinc	4E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	2.8E-03	mg/kg-day	3.0E-01	mg/kg-day	9.4E-03
			Exp. Route Total								3E-06					6E-01
			Dermal													
				Arsenic	4E+02	mg/kg	3.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	5.5E-07	2.6E-05	mg/kg-day	3.0E-04	mg/kg-day	8.6E-02
				Cadmium	2E+01	mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02
			Exp. Route Total								6E-07					1E-01
		Exposure Point Total									3E-06					7E-01
		SC08	Ingestion													
				Arsenic	4E+02	mg/kg	3.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	2.5E-06	2.3E-04	mg/kg-day	5.9E-04	mg/kg-day	3.9E-01
				Cadmium	7E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-03	mg/kg-day	4.5E-03
				Copper	4E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	3.0E-02	mg/kg-day	8.4E-03
				Lead												
				Manganese	5E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.8E-03
				Mercury	4E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	1.0E-04	mg/kg-day	2.4E-02
				Vanadium	2E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02
				Zinc	2E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.0E-03
			Exp. Route Total								3E-06					4E-01
			Dermal													
				Arsenic	4E+02	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	4.9E-07	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.6E-02
				Cadmium	7E+00	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	5.9E-03
			Exp. Route Total								5E-07					8E-02
		Exposure Point Total									3E-06					5E-01
		SC09	Ingestion													
				Arsenic	5E+01	mg/kg	4.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	3.4E-07	3.1E-05	mg/kg-day	5.9E-04	mg/kg-day	5.3E-02
				Mercury	6E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	1.0E-04	mg/kg-day	3.7E-03
			Exp. Route Total								3E-07					6E-02
			Dermal													
				Arsenic	5E+01	mg/kg	4.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	6.6E-08	3.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.0E-02
			Exp. Route Total								7E-08					1E-02
		Exposure Point Total									4E-07					7E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-7.13.CT
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC10	Ingestion	Arsenic	6E+01	mg/kg	5.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	4.2E-07	3.8E-05	mg/kg-day	5.9E-04	mg/kg-day	6.5E-02
			Exp. Route Total								4E-07					6E-02
			Dermal	Arsenic	6E+01	mg/kg	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	8.1E-08	3.8E-06	mg/kg-day	3.0E-04	mg/kg-day	1.3E-02
			Exp. Route Total								8E-08					1E-02
		Exposure Point Total									5E-07					8E-02
		SC11	Ingestion	Arsenic	1E+02	mg/kg	9.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	7.2E-07	6.5E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01
				Cadmium	6E+00	mg/kg	5.5E-08	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	1.0E-03	mg/kg-day	3.8E-03
				Copper	3E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	3.0E-02	mg/kg-day	7.0E-03
				Lead												
				Manganese	6E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	5.7E-03
				Mercury	2E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02
				Vanadium	7E+01	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02
			Exp. Route Total								7E-07					2E-01
			Dermal	Arsenic	1E+02	mg/kg	9.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.4E-07	6.5E-06	mg/kg-day	3.0E-04	mg/kg-day	2.2E-02
				Cadmium	6E+00	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.1E-03
			Exp. Route Total								1E-07					3E-02
		Exposure Point Total									9E-07					2E-01
		SC12	Ingestion	Arsenic	1E+02	mg/kg	1.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.0E-07	7.3E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01
				Cadmium	1E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	6.7E-06	mg/kg-day	1.0E-03	mg/kg-day	6.7E-03
				Copper	4E+02	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.7E-03
				Lead												
				Manganese	9E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	7.0E-02	mg/kg-day	8.4E-03
				Mercury	3E+00	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02
				Vanadium	8E+01	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	1.0E-03	mg/kg-day	5.4E-02
			Exp. Route Total								8E-07					2E-01
			Dermal	Arsenic	1E+02	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	7.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02
				Cadmium	1E+01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	2.5E-05	mg/kg-day	8.9E-03
			Exp. Route Total								2E-07					3E-02
		Exposure Point Total									1E-06					3E-01

US EPA ARCHIVE DOCUMENT

TABLE 3-7.13.CT

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC13	Ingestion													
				Arsenic	1E+02	mg/kg	1.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) $^{-1}$	8.4E-07	7.6E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
				Cadmium	1E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	7.6E-03
				Copper	3E+02	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-02	mg/kg-day	7.2E-03
				Lead												
				Manganese	3E+02	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.2E-03
				Mercury	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
				Vanadium	8E+01	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	1.0E-03	mg/kg-day	5.1E-02
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	3.5E-03
			Exp. Route Total								8E-07					2E-01
			Dermal													
				Arsenic	1E+02	mg/kg	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) $^{-1}$	1.6E-07	7.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.5E-02
				Cadmium	1E+01	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02
			Exp. Route Total								2E-07					4E-02
		Exposure Point Total									1E-06					2E-01
	Exposure Medium Total										N/A					N/A
Medium Total											N/A					N/A
											Total of Receptor Risks Across All Media					N/A
																Total of Receptor Hazards Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-8.1.RME

CALCULATION OF RADIATION CANCER RISKS

Reasonable Maximum Exposure

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe:	
Receptor Population:	
Receptor Age:	

Medium	Exposure Medium	Exposure Point	Exposure Route	Radionuclide of Potential Concern	EPC		Risk Calculation Approach	Cancer Risk Calculations				
					Value	Units		Intake/Activity		CSF		Cancer Risk
								Value	Units	Value	Units	
			Exp. Route Total									
				NOT APPLICABLE								
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												
			Exp. Route Total									
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												

Total of Receptor Risks Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-8.1.CT

CALCULATION OF RADIATION CANCER RISKS

Central Tendency

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe:	
Receptor Population:	
Receptor Age:	

Medium	Exposure Medium	Exposure Point	Exposure Route	Radionuclide of Potential Concern	EPC		Risk Calculation Approach	Cancer Risk Calculations				
					Value	Units		Intake/Activity		CSF		Cancer Risk
								Value	Units	Value	Units	
			Exp. Route Total									
				NOT APPLICABLE								
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												
			Exp. Route Total									
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												

Total of Receptor Risks Across All Media

US EPA ARCHIVE DOCUMENT

TABLE 3-9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	- -	4E-09	- -	4E-09	Liver	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station NR											
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-04	- -	- -	8E-04
			Chemical Total	1E-05	- -	4E-06	- -	1E-05		2E-01	- -	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Soil	Surface Soil	Station NR											
			Arsenic	2E-05	- -	3E-06	- -	2E-05	Skin	3E-01	- -	5E-02	4E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-02	- -	- -	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-04	- -	- -	8E-04
			Chemical Total	2E-05	- -	3E-06	- -	2E-05		4E-01	- -	6E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					4E-01
	Exposure Medium Total							2E-05					4E-01
Medium Total								2E-05					4E-01
Receptor Total								3E-05					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 7E-01

Total Skin HI =	6E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	4E-04
Total Kidney HI =	4E-02
Total Blood HI =	2E-03
Total General Toxicity HI =	4E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	5E-02
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.1.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station NR											
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	9E-02	- -	6E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-05	- -	- -	4E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-04	- -	- -	8E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Soil	Surface Soil	Station NR											
			Arsenic	3E-06	- -	1E-06	- -	4E-06	Skin	2E-01	- -	5E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	2E-03	3E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	3E-06	- -	1E-06	- -	4E-06		2E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					2E-01
	Exposure Medium Total							4E-06					2E-01
Medium Total								4E-06					2E-01
Receptor Total								7E-06					4E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 4E-01

Total Skin HI =	4E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	2E-04
Total Kidney HI =	2E-02
Total Blood HI =	8E-04
Total General Toxicity HI =	2E-04
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	- -	4E-09	- -	4E-09	Liver	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station 14											
			Benzo(a)anthracene	5E-08	- -	4E-08	- -	9E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	9E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	5E-09	- -	4E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-05	- -	4E-05	1E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	3E-06	- -	1E-06	- -	4E-06	Skin	6E-02	- -	2E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	1E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	7E-05	- -	- -	7E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	4E-06	- -	2E-06	- -	5E-06		8E-02	- -	2E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						5E-06					1E-01
	Exposure Medium Total							5E-06					1E-01
Medium Total								5E-06					1E-01
Receptor Total								6E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	1E-02
Total Immune System HI =	4E-04
Total Kidney HI =	1E-02
Total Blood HI =	6E-03
Total General Toxicity HI =	4E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.2.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 14											
			Benzo(a)anthracene	7E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	6E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	7E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-05	- -	3E-05	4E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	4E-07	- -	3E-07	- -	8E-07	Skin	2E-02	- -	2E-02	4E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-05	- -	- -	5E-05
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	7E-04	8E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-05	- -	- -	2E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-04	- -	- -	4E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-04	- -	- -	2E-04
			Chemical Total	5E-07	- -	4E-07	- -	1E-06		3E-02	- -	2E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						1E-06					5E-02
	Exposure Medium Total							1E-06					5E-02
Medium Total								1E-06					5E-02
Receptor Total								1E-06					6E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 6E-02

Total Skin HI =	4E-02
Total Nervous System HI =	3E-03
Total Immune System HI =	2E-04
Total Kidney HI =	4E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	5E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	- -	4E-09	- -	4E-09	Liver	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station 22/TT-22											
			Tetrachloroethene	9E-08	- -	- -	- -	9E-08	Liver	1E-04	- -	- -	1E-04
			Trichloroethene	2E-08	- -	- -	- -	2E-08	Liver	1E-03	- -	- -	1E-03
			Benzo(a)anthracene	1E-08	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	8E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-09	- -	2E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-09	- -	8E-09	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-05	- -	8E-06	2E-05
			Aroclor 1260	3E-09	- -	3E-09	- -	6E-09	Immune System	7E-04	- -	5E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-01	- -	- -	4E-01
			Arsenic	3E-06	- -	1E-06	- -	5E-06	Skin	6E-02	- -	2E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-04	- -	2E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-05	- -	- -	2E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-04	- -	- -	8E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-04	- -	- -	2E-04
			Chemical Total	4E-06	- -	1E-06	- -	5E-06		5E-01	- -	2E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						5E-06					5E-01
	Exposure Medium Total							5E-06					5E-01
Medium Total								5E-06					5E-01
Receptor Total								5E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	5E-06
Using the MADEP slope factor for PCE, the risk for this receptor would change to	5E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	5E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	5E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	5E-06

Total Hazard Across All Media	5E-01
Total Skin HI =	8E-02
Total Nervous System HI =	6E-03
Total Immune System HI =	2E-03
Total Kidney HI =	2E-02
Total Blood HI =	4E-01
Total General Toxicity HI =	3E-04
Total Liver HI =	1E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.3.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 22/TT-22											
			Tetrachloroethene	1E-08	- -	- -	- -	1E-08	Liver	7E-05	- -	- -	7E-05
			Trichloroethene	3E-09	- -	- -	- -	3E-09	Liver	6E-04	- -	- -	6E-04
			Benzo(a)anthracene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	3E-09	- -	4E-09	- -	7E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-10	- -	5E-10	- -	8E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-06	- -	7E-06	1E-05
			Aroclor 1260	3E-10	- -	5E-10	- -	7E-10	Immune System	3E-04	- -	5E-04	9E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Arsenic	6E-07	- -	4E-07	- -	1E-06	Skin	3E-02	- -	2E-02	5E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	2E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-04	- -	- -	2E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-04	- -	- -	4E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-05	- -	- -	8E-05
			Chemical Total	6E-07	- -	4E-07	- -	1E-06		9E-02	- -	2E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					1E-01
	Exposure Medium Total							1E-06					1E-01
Medium Total								1E-06					1E-01
Receptor Total								1E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	1E-06
Using the MADEP slope factor for PCE, the risk for this receptor would change to	1E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	1E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	1E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	1E-06

Total Hazard Across All Media	1E-01
Total Skin HI =	5E-02
Total Nervous System HI =	3E-03
Total Immune System HI =	1E-03
Total Kidney HI =	1E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	2E-04
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	- -	4E-09	- -	4E-09	Liver	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station WH	Trichloroethene	1E-09	- -	- -	- -	1E-09	Liver	8E-05	- -	- -	8E-05
			Benzo(a)anthracene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-07	- -	3E-07	- -	8E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-09	- -	3E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-05	- -	1E-05	2E-05
			Aroclor 1260	7E-09	- -	6E-09	- -	1E-08	Immune System	1E-03	- -	1E-03	2E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Arsenic	9E-05	- -	3E-05	- -	1E-04	Skin	2E+00	- -	5E-01	2E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-04	- -	- -	6E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-03	- -	1E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	9E-05	- -	3E-05	- -	1E-04		2E+00	- -	5E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						1E-04					2E+00
	Exposure Medium Total							1E-04					2E+00
Medium Total								1E-04					2E+00
Receptor Total								1E-04					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-04

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-04

Total Skin HI =	2E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	3E-03
Total Kidney HI =	8E-02
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	2E-04
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	6E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.4.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station WH											
			Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	4E-05	- -	- -	4E-05
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	7E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	5E-10	- -	8E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-09	- -	6E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-06	- -	8E-06	1E-05
			Aroclor 1260	4E-10	- -	7E-10	- -	1E-09	Immune System	5E-04	- -	8E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	1E-05	- -	1E-05	- -	2E-05	Skin	8E-01	- -	5E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-02	- -	- -	7E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-04	- -	- -	1E-04
			Chemical Total	1E-05	- -	1E-05	- -	2E-05		9E-01	- -	5E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					1E+00
	Exposure Medium Total							2E-05					1E+00
Medium Total								2E-05					1E+00
Receptor Total								2E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	7E-02
Total Immune System HI =	1E-03
Total Kidney HI =	5E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	7E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	- -	4E-09	- -	4E-09	Liver	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station WG	Trichloroethene	1E-09	- -	- -	- -	1E-09	Liver	7E-05	- -	- -	7E-05
			Benzo(a)anthracene	6E-09	- -	5E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	7E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-08	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-10	- -	7E-10	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	6E-09	- -	5E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-06	- -	3E-06	7E-06
			Aroclor 1260	1E-09	- -	1E-09	- -	2E-09	Immune System	3E-04	- -	2E-04	5E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Arsenic	1E-05	- -	4E-06	- -	2E-05	Skin	2E-01	- -	7E-02	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-04	- -	- -	6E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	7E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	1E-05	- -	4E-06	- -	2E-05		3E-01	- -	8E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					4E-01
	Exposure Medium Total							2E-05					4E-01
Medium Total								2E-05					4E-01
Receptor Total								2E-05					4E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 4E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	3E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	9E-04
Total Kidney HI =	5E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	2E-04
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	6E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.5.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station WG	Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	3E-05	- -	- -	3E-05
			Benzo(a)anthracene	9E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-10	- -	2E-10	- -	4E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-06	- -	3E-06	5E-06
			Aroclor 1260	1E-10	- -	2E-10	- -	3E-10	Immune System	1E-04	- -	2E-04	3E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	1E-01	- -	7E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	7E-03	8E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	8E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	5E-04
Total Kidney HI =	3E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	6E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	5E-04	5E-04
			Arsenic	--	- -	9E-07	- -	9E-07	Skin	- -	- -	8E-03	8E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-03	5E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	8E-02	8E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-03	2E-03
			Chemical Total	--	- -	9E-07	- -	9E-07		- -	- -	1E-01	1E-01
			Radionuclide Total										
		Exposure Point Total						9E-07					1E-01
	Exposure Medium Total							9E-07					1E-01
Medium Total								9E-07					1E-01
Sediment	Sediment	Station WS/WSS											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	4E-05	- -	1E-05	- -	6E-05	Skin	7E-01	- -	2E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-03	- -	- -	4E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	5E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-04	- -	- -	6E-04
			Chemical Total	4E-05	- -	1E-05	- -	6E-05		1E+00	- -	3E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					1E+00
	Exposure Medium Total							6E-05					1E+00
Medium Total								6E-05					1E+00
Soil	Surface Soil	Station WS/WSS											
			Arsenic	3E-06	- -	7E-07	- -	4E-06	Skin	6E-02	- -	1E-02	7E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-04	- -	2E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	3E-06	- -	7E-07	- -	4E-06		2E-01	- -	1E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					2E-01
	Exposure Medium Total							4E-06					2E-01
Medium Total								4E-06					2E-01
Receptor Total								6E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	8E-02
Total Immune System HI =	2E-03
Total Kidney HI =	2E-01
Total Blood HI =	9E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	5E-04
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	4E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.6.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	- -	2E-09	- -	2E-09	Liver	- -	- -	3E-04	3E-04
			Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	3E-04	3E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-02	3E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	6E-04	6E-04
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	4E-02	4E-02
			Radionuclide Total										
		Exposure Point Total						1E-07					4E-02
	Exposure Medium Total							1E-07					4E-02
Medium Total								1E-07					4E-02
Sediment	Sediment	Station WS/WSS											
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	5E-06	- -	4E-06	- -	8E-06	Skin	3E-01	- -	2E-01	5E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	5E-06	- -	4E-06	- -	8E-06		4E-01	- -	2E-01	6E-01
			Radionuclide Total										
		Exposure Point Total						8E-06					6E-01
	Exposure Medium Total							8E-06					6E-01
Medium Total								8E-06					6E-01
Soil	Surface Soil	Station WS/WSS											
			Arsenic	2E-06	- -	2E-07	- -	2E-06	Skin	5E-02	- -	8E-03	6E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	6E-04	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-03	- -	- -	9E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	2E-06	- -	2E-07	- -	2E-06		1E-01	- -	9E-03	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								1E-05					8E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 8E-01

Total Skin HI =	5E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	6E-04
Total Kidney HI =	1E-01
Total Blood HI =	5E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	3E-04
Total Gastrointestinal System HI =	4E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.7.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station TT-30											
			Arsenic	5E-05	- -	2E-05	- -	7E-05	Skin	9E-01	- -	3E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	8E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-01	- -	- -	4E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-03	- -	- -	1E-03
			Chemical Total	5E-05	- -	2E-05	- -	7E-05		1E+00	- -	3E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						7E-05					2E+00
	Exposure Medium Total							7E-05					2E+00
Medium Total								7E-05					2E+00
Receptor Total								7E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-05

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 7E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 7E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 7E-05

Total Skin HI =	1E+00
Total Nervous System HI =	4E-01
Total Immune System HI =	9E-05
Total Kidney HI =	8E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.7.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station TT-30											
			Arsenic	8E-06	- -	6E-06	- -	1E-05	Skin	4E-01	- -	3E-01	7E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	8E-03	9E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	5E-04	- -	- -	5E-04
			Chemical Total	8E-06	- -	6E-06	- -	1E-05		7E-01	- -	3E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						1E-05					1E+00
	Exposure Medium Total							1E-05					1E+00
Medium Total								1E-05					1E+00
Receptor Total								1E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	7E-01
Total Nervous System HI =	2E-01
Total Immune System HI =	4E-05
Total Kidney HI =	4E-02
Total Blood HI =	5E-03
Total General Toxicity HI =	9E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.8.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-01											
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	4E-02	6E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-02	- -	- -	6E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-01	- -	- -	2E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chemical Total	1E-05	- -	4E-06	- -	1E-05		6E-01	- -	1E-01	7E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					7E-01
	Exposure Medium Total							1E-05					7E-01
Medium Total								1E-05					7E-01
Receptor Total								1E-05					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 7E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	3E-01
Total Nervous System HI =	9E-02
Total Immune System HI =	4E-04
Total Kidney HI =	3E-01
Total Blood HI =	7E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.8.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-01											
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Arsenic	1E-06	- -	9E-07	- -	2E-06	Skin	7E-02	- -	5E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-04	- -	- -	6E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-04	- -	- -	7E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	1E-06	- -	9E-07	- -	2E-06		2E-01	- -	8E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					3E-01
	Exposure Medium Total							2E-06					3E-01
Medium Total								2E-06					3E-01
Receptor Total								2E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-06

Total Skin HI =	1E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	3E-02
Total General Toxicity HI =	9E-04
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	6E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-02											
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	7E-06	- -	3E-06	- -	1E-05	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-03	- -	- -	5E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	7E-06	- -	3E-06	- -	1E-05		2E-01	- -	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Receptor Total								1E-05					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	9E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	5E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.9.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-02	Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	9E-07	- -	7E-07	- -	2E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	7E-05	- -	- -	7E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	9E-07	- -	7E-07	- -	2E-06		9E-02	- -	5E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-06

Total Skin HI =	8E-02
Total Nervous System HI =	8E-03
Total Immune System HI =	1E-04
Total Kidney HI =	4E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	4E-04
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-03											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	1E-04	- -	4E-05	- -	1E-04	Skin	2E+00	- -	6E-01	3E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	6E-02	8E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-03	- -	- -	4E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	1E-04	- -	4E-05	- -	1E-04		2E+00	- -	7E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						1E-04					3E+00
	Exposure Medium Total							1E-04					3E+00
Medium Total								1E-04					3E+00
Receptor Total								1E-04					3E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	1E-04
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	1E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	1E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to	1E-04

Total Hazard Across All Media	3E+00
Total Skin HI =	3E+00
Total Nervous System HI =	7E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	6E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.10.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-03											
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	1E-05	- -	9E-06	- -	2E-05	Skin	7E-01	- -	5E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	7E-04	- -	- -	7E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-03	- -	4E-02	5E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chemical Total	1E-05	- -	9E-06	- -	2E-05		8E-01	- -	5E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					1E+00
	Exposure Medium Total							2E-05					1E+00
Medium Total								2E-05					1E+00
Receptor Total								2E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-04											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	1E-05	- -	4E-05	Skin	6E-01	- -	2E-01	8E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-03	- -	- -	7E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	3E-05	- -	1E-05	- -	4E-05		1E+00	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						4E-05					1E+00
	Exposure Medium Total							4E-05					1E+00
Medium Total								4E-05					1E+00
Receptor Total								5E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 4E-05

Total Skin HI =	8E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	8E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.11.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-04											
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	4E-06	- -	3E-06	- -	7E-06	Skin	2E-01	- -	1E-01	4E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Chemical Total	4E-06	- -	3E-06	- -	7E-06		3E-01	- -	2E-01	5E-01
			Radionuclide Total										
		Exposure Point Total						7E-06					5E-01
	Exposure Medium Total							7E-06					5E-01
Medium Total								7E-06					5E-01
Receptor Total								7E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 7E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 7E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 7E-06

Total Skin HI =	4E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	8E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.12.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	2E-05	- -	4E-06	- -	2E-05	Skin	4E-01	- -	6E-02	4E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	3E-03	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-02	- -	- -	9E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	2E-05	- -	4E-06	- -	2E-05		6E-01	- -	7E-02	6E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					6E-01
	Exposure Medium Total							2E-05					6E-01
Medium Total								2E-05					6E-01
Receptor Total								2E-05					6E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.12.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	1E-05	- -	9E-07	- -	1E-05	Skin	3E-01	- -	5E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-02	- -	- -	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-04	- -	- -	8E-04
			Chemical Total	1E-05	- -	9E-07	- -	1E-05		4E-01	- -	5E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					5E-01
	Exposure Medium Total							1E-05					5E-01
Medium Total								1E-05					5E-01
Receptor Total								1E-05					5E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.13.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-06											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	9E-06	- -	3E-05	Skin	5E-01	- -	1E-01	6E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	7E-02	1E-01
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	6E-04	- -	- -	6E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	4E-04	- -	- -	4E-04
			Chemical Total	3E-05	- -	9E-06	- -	3E-05		8E-01	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-05

Total Skin HI =	6E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	3E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	3E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.13.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-06											
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	3E-06	- -	2E-06	- -	5E-06	Skin	2E-01	- -	1E-01	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-04	- -	- -	5E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	5E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	3E-06	- -	2E-06	- -	5E-06		3E-01	- -	2E-01	5E-01
			Radionuclide Total										
		Exposure Point Total						5E-06					5E-01
	Exposure Medium Total							5E-06					5E-01
Medium Total								5E-06					5E-01
Receptor Total								5E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	5E-06
Total Hazard Across All Media	5E-01
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	5E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	5E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	5E-06

Total Skin HI =	3E-01
Total Nervous System HI =	8E-03
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	5E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.14.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station CB-07											
			Arsenic	9E-06	- -	3E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	8E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	9E-06	- -	3E-06	- -	1E-05		2E-01	- -	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Receptor Total								1E-05					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	9E-05
Total Kidney HI =	6E-02
Total Blood HI =	1E-03
Total General Toxicity HI =	7E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.14.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station CB-07											
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	9E-02	- -	6E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	5E-03	6E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	1E-01
Total Nervous System HI =	6E-03
Total Immune System HI =	4E-05
Total Kidney HI =	3E-02
Total Blood HI =	5E-04
Total General Toxicity HI =	4E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.15.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	1E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-09	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	9E-06	- -	7E-06	2E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	1E-05	- -	4E-05	Skin	6E-01	- -	2E-01	8E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-03	- -	- -	1E-03
			Chemical Total	3E-05	- -	1E-05	- -	4E-05		7E-01	- -	2E-01	9E-01
			Radionuclide Total										
		Exposure Point Total						4E-05					9E-01
	Exposure Medium Total							4E-05					9E-01
Medium Total								4E-05					9E-01
Receptor Total								4E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 4E-05

Total Skin HI =	8E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	3E-04
Total Kidney HI =	9E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.15.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	7E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	3E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	7E-11	- -	1E-10	- -	2E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-10	- -	7E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-06	- -	2E-06	4E-06
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	1E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	6E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-05	- -	- -	6E-05
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	7E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	4E-05
Total Kidney HI =	2E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	3E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.16.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Sediment	Sediment	Station 09	Benzo(a)anthracene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	6E-07	- -	5E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Arsenic	5E-06	- -	2E-06	- -	6E-06	Skin	8E-02	- -	3E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	7E-04	- -	- -	7E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	6E-05	- -	- -	6E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-04	- -	- -	7E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	6E-06	- -	3E-06	- -	8E-06		2E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						8E-06					2E-01
	Exposure Medium Total							8E-06					2E-01
Medium Total								8E-06					2E-01
Receptor Total								9E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 9E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 9E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 9E-06

Total Skin HI =	1E-01
Total Nervous System HI =	7E-02
Total Immune System HI =	3E-04
Total Kidney HI =	3E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	7E-04
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.16.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station 09	Benzo(a)anthracene	3E-09	- -	5E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-08	- -	6E-08	- -	9E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	9E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	5E-09	- -	9E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	3E-07	- -	2E-07	- -	4E-07	Skin	1E-02	- -	9E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	7E-04	9E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-04	- -	- -	9E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-04	- -	- -	2E-04
			Chemical Total	3E-07	- -	3E-07	- -	6E-07		2E-02	- -	1E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					3E-02
	Exposure Medium Total							6E-07					3E-02
Medium Total								6E-07					3E-02
Receptor Total								6E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-07

Total Hazard Across All Media: 4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-07
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-07
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-07

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	4E-05
Total Kidney HI =	5E-03
Total Blood HI =	5E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.17.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Soil	Surface Soil	Station DA											
			Arsenic	5E-05	- -	1E-05	- -	6E-05	Skin	9E-01	- -	2E-01	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	1E-02	2E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-01	- -	- -	2E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-02	- -	- -	6E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	5E-05	- -	1E-05	- -	6E-05		1E+00	- -	2E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					2E+00
	Exposure Medium Total							6E-05					2E+00
Medium Total								6E-05					2E+00
Receptor Total								6E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-05

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-05

Total Skin HI =	1E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	3E-04
Total Kidney HI =	9E-02
Total Blood HI =	6E-02
Total General Toxicity HI =	N/A
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	2E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.17.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Soil	Surface Soil	Station DA											
			Arsenic	3E-06	- -	1E-06	- -	4E-06	Skin	2E-01	- -	5E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-02	- -	- -	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	3E-06	- -	1E-06	- -	4E-06		2E-01	- -	5E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					3E-01
	Exposure Medium Total							4E-06					3E-01
Medium Total								4E-06					3E-01
Receptor Total								4E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	4E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	4E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	4E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	4E-06

Total Hazard Across All Media	3E-01
Total Skin HI =	2E-01
Total Nervous System HI =	7E-03
Total Immune System HI =	4E-05
Total Kidney HI =	1E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.18.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station AM											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Arsenic	5E-06	- -	2E-06	- -	7E-06	Skin	1E-01	- -	3E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	4E-03	6E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	5E-06	- -	2E-06	- -	7E-06		1E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						7E-06					2E-01
	Exposure Medium Total							7E-06					2E-01
Medium Total								7E-06					2E-01
Receptor Total								8E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 8E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 8E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 8E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 8E-06

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	9E-05
Total Kidney HI =	2E-02
Total Blood HI =	6E-03
Total General Toxicity HI =	5E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.18.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station AM											
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	9E-07	- -	6E-07	- -	2E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-04	- -	4E-03	5E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-05	- -	- -	5E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	9E-07	- -	6E-07	- -	2E-06		7E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	2E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	2E-06

Total Hazard Across All Media	1E-01
Total Skin HI =	8E-02
Total Nervous System HI =	1E-02
Total Immune System HI =	4E-05
Total Kidney HI =	1E-02
Total Blood HI =	3E-03
Total General Toxicity HI =	3E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.19.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	9E-04	9E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Sediment	Sediment	Station KF											
			Arsenic	7E-06	- -	3E-06	- -	1E-05	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	3E-03	5E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	6E-04	- -	- -	6E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	7E-06	- -	3E-06	- -	1E-05		2E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Soil	Surface Soil	Station KF											
			Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	2E-01	- -	4E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	4E-03	7E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-02	- -	- -	6E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		4E-01	- -	4E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					4E-01
	Exposure Medium Total							1E-05					4E-01
Medium Total								1E-05					4E-01
Receptor Total								2E-05					6E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	4E-03
Total General Toxicity HI =	7E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.19.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	- -	5E-09	- -	5E-09	Skin	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-04	4E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	5E-09	- -	5E-09		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Sediment	Sediment	Station KF											
			Arsenic	4E-07	- -	3E-07	- -	6E-07	Skin	2E-02	- -	1E-02	3E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	1E-03	1E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-04	- -	- -	9E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	4E-07	- -	3E-07	- -	6E-07		3E-02	- -	1E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Soil	Surface Soil	Station KF											
			Arsenic	6E-07	- -	2E-07	- -	9E-07	Skin	4E-02	- -	1E-02	5E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-03	- -	- -	9E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-04	- -	- -	9E-04
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	6E-07	- -	2E-07	- -	9E-07		6E-02	- -	1E-02	7E-02
			Radionuclide Total										
		Exposure Point Total						9E-07					7E-02
	Exposure Medium Total							9E-07					7E-02
Medium Total								9E-07					7E-02
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	2E-02
Total Blood HI =	6E-04
Total General Toxicity HI =	1E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.20.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	9E-04	9E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Sediment	Sediment	Station 08	Benzo(a)anthracene	9E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	2E-07	- -	4E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-08	- -	2E-08	- -	5E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-07	- -	2E-07	- -	4E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	4E-06	- -	1E-06	- -	5E-06	Skin	7E-02	- -	2E-02	9E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	6E-06	- -	3E-06	- -	9E-06		2E-01	- -	2E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					2E-01
	Exposure Medium Total							9E-06					2E-01
Medium Total								9E-06					2E-01
Receptor Total								9E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 2E-01

Total Skin HI =	9E-02
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.20.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	- -	5E-09	- -	5E-09	Skin	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-04	4E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	5E-09	- -	5E-09		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Sediment	Sediment	Station 08	Benzo(a)anthracene	3E-09	- -	5E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-08	- -	7E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	9E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	- -	4E-09	- -	7E-09	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	1E-07	- -	1E-07	- -	2E-07	Skin	8E-03	- -	5E-03	1E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-05	- -	- -	6E-05
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-04	- -	- -	6E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-04	- -	- -	5E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	2E-07	- -	2E-07	- -	4E-07		2E-02	- -	5E-03	2E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					2E-02
	Exposure Medium Total							4E-07					2E-02
Medium Total								4E-07					2E-02
Receptor Total								4E-07					3E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-07

Total Hazard Across All Media: 3E-02

Total Skin HI =	1E-02
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-03
Total Blood HI =	5E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-04
Total Cardiovascular HI =	6E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.21.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Sediment	Sediment	Station 07/DP	Trichloroethene	2E-09	- -	- -	- -	2E-09	Liver	1E-04	- -	- -	1E-04
			Benzo(a)anthracene	7E-07	- -	6E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	7E-06	- -	6E-06	- -	1E-05	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-07	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-06	- -	1E-06	- -	3E-06	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	5E-07	- -	4E-07	- -	9E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-04	- -	4E-04	8E-04
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	5E-03	- -	4E-03	8E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chemical Total	2E-05	- -	1E-05	- -	3E-05		4E-01	- -	8E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						3E-05					5E-01
	Exposure Medium Total							3E-05					5E-01
Medium Total								3E-05					5E-01
Soil	Surface Soil	Station 07/DP	Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	2E-01	- -	4E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	6E-04	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-02	- -	- -	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-02	- -	- -	9E-02
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		5E-01	- -	4E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					5E-01
	Exposure Medium Total							1E-05					5E-01
Medium Total								1E-05					5E-01
Receptor Total								5E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 5E-05

Total Skin HI =	5E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	3E-03
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.21.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station 07/DP	Trichloroethene	8E-11	- -	- -	- -	8E-11	Liver	2E-05	- -	- -	2E-05
			Benzo(a)anthracene	4E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-07	- -	6E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	7E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	4E-08	- -	7E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	8E-05	- -	1E-04	2E-04
			Aroclor 1260	6E-10	- -	1E-09	- -	2E-09	Immune System	8E-04	- -	1E-03	2E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	6E-07	- -	4E-07	- -	1E-06	Skin	3E-02	- -	2E-02	5E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-05	- -	- -	4E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-06	- -	1E-06	- -	3E-06		7E-02	- -	3E-02	9E-02
			Radionuclide Total										
		Exposure Point Total						3E-06					9E-02
	Exposure Medium Total							3E-06					9E-02
Medium Total								3E-06					9E-02
Soil	Surface Soil	Station 07/DP	Arsenic	6E-07	- -	2E-07	- -	9E-07	Skin	4E-02	- -	1E-02	5E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-05	- -	2E-04	2E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-04	- -	- -	8E-04
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	6E-07	- -	2E-07	- -	9E-07		8E-02	- -	1E-02	9E-02
			Radionuclide Total										
		Exposure Point Total						9E-07					9E-02
	Exposure Medium Total							9E-07					9E-02
Medium Total								9E-07					9E-02
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	1E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	2E-03
Total Kidney HI =	3E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	2E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.22.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Sediment	Sediment	Station LP	Antimony	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Arsenic	2E-05	- -	7E-06	- -	3E-05	Skin	4E-01	- -	1E-01	5E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	9E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Chemical Total	2E-05	- -	7E-06	- -	3E-05		5E-01	- -	1E-01	6E-01
			Radionuclide Total										
		Exposure Point Total						3E-05					6E-01
	Exposure Medium Total							3E-05					6E-01
Medium Total								3E-05					6E-01
Receptor Total								3E-05					6E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	5E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	7E-02
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.22.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station LP	Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	1E-06	- -	8E-07	- -	2E-06	Skin	6E-02	- -	4E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-04	- -	3E-03	4E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-06	- -	8E-07	- -	2E-06		8E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	1E-01
Total Nervous System HI =	4E-03
Total Immune System HI =	7E-05
Total Kidney HI =	1E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.23.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	4E-03	4E-03
			Radionuclide Total										
		Exposure Point Total						N/A					4E-03
	Exposure Medium Total							N/A					4E-03
Medium Total								N/A					4E-03
Sediment	Sediment	Station AS	Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	5E-06	- -	2E-06	- -	7E-06	Skin	1E-01	- -	3E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	7E-04	- -	- -	7E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	6E-03	- -	1E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chemical Total	5E-06	- -	2E-06	- -	7E-06		2E-01	- -	5E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						7E-06					2E-01
	Exposure Medium Total							7E-06					2E-01
Medium Total								7E-06					2E-01
Receptor Total								7E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 2E-01

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-04
Total Kidney HI =	6E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

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TABLE 3-9.23.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station AS	Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	8E-07	- -	6E-07	- -	1E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	8E-07	- -	6E-07	- -	1E-06		9E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					1E-01
	Exposure Medium Total							1E-06					1E-01
Medium Total								1E-06					1E-01
Receptor Total								1E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	1E-02
Total Immune System HI =	7E-05
Total Kidney HI =	4E-02
Total Blood HI =	6E-03
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.24.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-03	5E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	7E-03	7E-03
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Receptor Total								N/A					1E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: N/A

Total Hazard Across All Media: 1E-02

Total Skin HI =	N/A
Total Nervous System HI =	7E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.24.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	8E-04	8E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Receptor Total								N/A					2E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: N/A

Total Hazard Across All Media: 2E-03

Total Skin HI =	N/A
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	8E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.25.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	5E-05	5E-05
			Tetrachloroethene	--	- -	9E-07	- -	9E-07	Liver	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	9E-04	9E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	9E-07	- -	9E-07		- -	- -	6E-03	6E-03
			Radionuclide Total										
		Exposure Point Total						9E-07					6E-03
	Exposure Medium Total							9E-07					6E-03
Medium Total								9E-07					6E-03
Sediment	Sediment	Station 05											
			Benzo(a)anthracene	3E-07	- -	2E-07	- -	5E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-06	- -	3E-06	- -	6E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-04	- -	1E-04	3E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	3E-06	- -	1E-06	- -	5E-06	Skin	6E-02	- -	2E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	9E-04	- -	- -	9E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	7E-06	- -	5E-06	- -	1E-05		2E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Receptor Total								1E-05					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 1E-05

Total Hazard Across All Media: 2E-01

Total Skin HI =	8E-02
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	9E-04
Total Cardiovascular HI =	9E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.25.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	1E-05	1E-05
			Tetrachloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-04	2E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	6E-08	- -	6E-08		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						6E-08					1E-03
	Exposure Medium Total							6E-08					1E-03
Medium Total								6E-08					1E-03
Sediment	Sediment	Station 05											
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-08	- -	4E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-10	- -	3E-10	- -	5E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	8E-06	- -	1E-05	2E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	6E-08	- -	4E-08	- -	1E-07	Skin	3E-03	- -	2E-03	6E-03
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-05	- -	2E-04	3E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-06	- -	- -	5E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-04	- -	- -	2E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-04	- -	- -	2E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-04	- -	- -	1E-04
			Chemical Total	9E-08	- -	9E-08	- -	2E-07		1E-02	- -	2E-03	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Receptor Total								2E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 2E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	6E-03
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	5E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	2E-04
Total Gastrointestinal System HI =	2E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.26.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Receptor Total								7E-08					9E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-08

Total Hazard Across All Media: 9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.26.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Receptor Total								3E-09					9E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-09

Total Hazard Across All Media: 9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.27.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Sediment	Sediment	Station 03	Benzo(a)anthracene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-09	- -	7E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	7E-05	- -	5E-05	1E-04
			Aroclor 1260	4E-08	- -	3E-08	- -	7E-08	Immune System	8E-03	- -	6E-03	1E-02
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	1E-05	- -	4E-06	- -	2E-05	Skin	2E-01	- -	7E-02	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-03	- -	- -	8E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Chemical Total	1E-05	- -	6E-06	- -	2E-05		3E-01	- -	9E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					4E-01
	Exposure Medium Total							2E-05					4E-01
Medium Total								2E-05					4E-01
Receptor Total								2E-05					4E-01

-- = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 4E-01

Total Skin HI =	3E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-02
Total Kidney HI =	1E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.27.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Sediment	Sediment	Station 03											
			Benzo(a)anthracene	4E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-08	- -	5E-08	- -	8E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	4E-09	- -	7E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-10	- -	4E-10	- -	6E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	7E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	8E-06	1E-05
			Aroclor 1260	5E-10	- -	8E-10	- -	1E-09	Immune System	6E-04	- -	9E-04	2E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	2E-07	- -	2E-07	- -	4E-07	Skin	1E-02	- -	9E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-04	- -	2E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-04	- -	- -	6E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	3E-07	- -	3E-07	- -	5E-07		2E-02	- -	1E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Receptor Total								5E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-07

Total Hazard Across All Media: 4E-02

Total Skin HI =	2E-02
Total Nervous System HI =	2E-03
Total Immune System HI =	2E-03
Total Kidney HI =	8E-03
Total Blood HI =	9E-04
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.28.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Receptor Total								7E-08					9E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-08

Total Hazard Across All Media: 9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.28.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Receptor Total								3E-09					9E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-09

Total Hazard Across All Media: 9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.29.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	3E-07	- -	6E-08	- -	3E-07	Skin	4E-03	- -	5E-04	4E-03
			Chromium VI	N/A	- -	N/A	- -	N/A	Gastrointestinal System	2E-04	- -	2E-03	2E-03
			Lead										
			Manganese	N/A	- -	N/A	- -	N/A	Nervous System	4E-04	- -	1E-03	2E-03
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	5E-05	- -	9E-05	1E-04
			Chemical Total	3E-07	- -	6E-08	- -	3E-07		4E-03	- -	4E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						3E-07					8E-03
	Exposure Medium Total							3E-07					8E-03
Medium Total								3E-07					8E-03
Sediment	Sediment	Station 01											
			Benzo(a)anthracene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-07	- -	2E-07	- -	5E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-09	- -	2E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	3E-05	- -	2E-05	6E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	8E-07	- -	3E-07	- -	1E-06	Skin	1E-02	- -	5E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	5E-04	8E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-04	- -	- -	8E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	1E-06	- -	6E-07	- -	2E-06		5E-02	- -	5E-03	5E-02
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-02
	Exposure Medium Total							2E-06					5E-02
Medium Total								2E-06					5E-02
Receptor Total								2E-06					6E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 6E-02

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	1E-04
Total Kidney HI =	2E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.29.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	5E-09	- -	1E-09	- -	7E-09	Skin	2E-04	- -	3E-05	3E-04
			Chromium VI	N/A	- -	N/A	- -	N/A	Gastrointestinal System	1E-05	- -	1E-04	1E-04
			Lead										
			Manganese	N/A	- -	N/A	- -	N/A	Nervous System	2E-05	- -	8E-05	1E-04
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	3E-06	- -	6E-06	9E-06
			Chemical Total	5E-09	- -	1E-09	- -	7E-09		3E-04	- -	2E-04	5E-04
			Radionuclide Total										
		Exposure Point Total						7E-09					5E-04
	Exposure Medium Total							7E-09					5E-04
Medium Total								7E-09					5E-04
Sediment	Sediment	Station 01	Benzo(a)anthracene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-10	- -	2E-10	- -	3E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	8E-06	1E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	4E-08	- -	3E-08	- -	8E-08	Skin	2E-03	- -	2E-03	4E-03
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-05	- -	- -	4E-05
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-05	- -	2E-04	2E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-06	- -	- -	1E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-05	- -	- -	9E-05
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-04	- -	- -	3E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-05	- -	- -	8E-05
			Chemical Total	6E-08	- -	6E-08	- -	1E-07		7E-03	- -	2E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					9E-03
	Exposure Medium Total							1E-07					9E-03
Medium Total								1E-07					9E-03
Receptor Total								1E-07					1E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-07

Total Hazard Across All Media: 1E-02

Total Skin HI =	4E-03
Total Nervous System HI =	4E-04
Total Immune System HI =	9E-06
Total Kidney HI =	3E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	9E-05
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-04
Total Cardiovascular HI =	4E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.30.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 3											
			4,4'-DDD	7E-08	- -	- -	- -	7E-08	Immune System	4E-04	- -	- -	4E-04
			4,4'-DDE	2E-07	- -	- -	- -	2E-07	Developmental	6E-03	- -	- -	6E-03
			4,4'-DDT	4E-08	- -	- -	- -	4E-08	Liver	6E-04	- -	- -	6E-04
			Aldrin	2E-07	- -	- -	- -	2E-07	Liver	1E-03	- -	- -	1E-03
			alpha-Chlordane	8E-08	- -	- -	- -	8E-08	Liver	1E-03	- -	- -	1E-03
			Aroclor-1254	2E-06	- -	- -	- -	2E-06	Immune System	1E-01	- -	- -	1E-01
			Aroclor-1260	5E-06	- -	- -	- -	5E-06	Immune System	3E-01	- -	- -	3E-01
			delta-BHC	N/A	- -	- -	- -	N/A	Liver/Kidney	2E-04	- -	- -	2E-04
			Dieldrin	1E-06	- -	- -	- -	1E-06	Liver	5E-03	- -	- -	5E-03
			Heptachlor epoxide	3E-07	- -	- -	- -	3E-07	Liver	7E-03	- -	- -	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-01	- -	- -	4E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	9E-06	- -	- -	- -	9E-06		9E-01	- -	- -	9E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					9E-01
	Exposure Medium Total							9E-06					9E-01
Medium Total								9E-06					9E-01
Receptor Total								9E-06					9E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 9E-01

Total Skin HI =	N/A
Total Nervous System HI =	4E-01
Total Immune System HI =	4E-01
Total Kidney HI =	2E-04
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	6E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.30.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 3											
			4,4'-DDD	8E-09	- -	- -	- -	8E-09	Immune System	1E-04	- -	- -	1E-04
			4,4'-DDE	3E-08	- -	- -	- -	3E-08	Developmental	2E-03	- -	- -	2E-03
			4,4'-DDT	5E-09	- -	- -	- -	5E-09	Liver	2E-04	- -	- -	2E-04
			Aldrin	3E-08	- -	- -	- -	3E-08	Liver	4E-04	- -	- -	4E-04
			alpha-Chlordane	1E-08	- -	- -	- -	1E-08	Liver	5E-04	- -	- -	5E-04
			Aroclor-1254	1E-07	- -	- -	- -	1E-07	Immune System	4E-02	- -	- -	4E-02
			Aroclor-1260	3E-07	- -	- -	- -	3E-07	Immune System	1E-01	- -	- -	1E-01
			delta-BHC	N/A	- -	- -	- -	N/A	Liver/Kidney	7E-05	- -	- -	7E-05
			Dieldrin	2E-07	- -	- -	- -	2E-07	Liver	2E-03	- -	- -	2E-03
			Heptachlor epoxide	4E-08	- -	- -	- -	4E-08	Liver	3E-03	- -	- -	3E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	7E-07	- -	- -	- -	7E-07		3E-01	- -	- -	3E-01
			Radionuclide Total										
		Exposure Point Total						7E-07					3E-01
	Exposure Medium Total							7E-07					3E-01
Medium Total								7E-07					3E-01
Receptor Total								7E-07					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-07

Total Hazard Across All Media: 3E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	2E-01
Total Kidney HI =	7E-05
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.31.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reaches 4 and 5											
			4,4'-DDD	2E-07	- -	- -	- -	2E-07	Immune System	8E-04	- -	- -	8E-04
			4,4'-DDE	1E-06	- -	- -	- -	1E-06	Developmental	3E-02	- -	- -	3E-02
			4,4'-DDT	1E-07	- -	- -	- -	1E-07	Liver	2E-03	- -	- -	2E-03
			Aldrin	4E-07	- -	- -	- -	4E-07	Liver	2E-03	- -	- -	2E-03
			alpha-Chlordane	4E-08	- -	- -	- -	4E-08	Liver	5E-04	- -	- -	5E-04
			Aroclor-1254	7E-06	- -	- -	- -	7E-06	Immune System	4E-01	- -	- -	4E-01
			Aroclor-1260	2E-05	- -	- -	- -	2E-05	Immune System	1E+00	- -	- -	1E+00
			Dieldrin	1E-06	- -	- -	- -	1E-06	Liver	3E-03	- -	- -	3E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-01	- -	- -	3E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	3E-05	- -	- -	- -	3E-05		2E+00	- -	- -	2E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					2E+00
	Exposure Medium Total							3E-05					2E+00
Medium Total								3E-05					2E+00
Receptor Total								3E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	N/A
Total Nervous System HI =	3E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	2E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.31.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reaches 4 and 5											
			4,4'-DDD	2E-08	- -	- -	- -	2E-08	Immune System	3E-04	- -	- -	3E-04
			4,4'-DDE	1E-07	- -	- -	- -	1E-07	Developmental	1E-02	- -	- -	1E-02
			4,4'-DDT	1E-08	- -	- -	- -	1E-08	Liver	7E-04	- -	- -	7E-04
			Aldrin	4E-08	- -	- -	- -	4E-08	Liver	7E-04	- -	- -	7E-04
			alpha-Chlordane	4E-09	- -	- -	- -	4E-09	Liver	2E-04	- -	- -	2E-04
			Aroclor-1254	4E-07	- -	- -	- -	4E-07	Immune System	2E-01	- -	- -	2E-01
			Aroclor-1260	9E-07	- -	- -	- -	9E-07	Immune System	4E-01	- -	- -	4E-01
			Dieldrin	1E-07	- -	- -	- -	1E-07	Liver	1E-03	- -	- -	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	2E-06	- -	- -	- -	2E-06		7E-01	- -	- -	7E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					7E-01
	Exposure Medium Total							2E-06					7E-01
Medium Total								2E-06					7E-01
Receptor Total								2E-06					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 7E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	6E-01
Total Kidney HI =	N/A
Total Blood HI =	8E-03
Total General Toxicity HI =	N/A
Total Liver HI =	8E-03
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	1E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.32.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 6											
			4,4'-DDD	2E-07	- -	- -	- -	2E-07	Immune System	1E-03	- -	- -	1E-03
			4,4'-DDE	8E-07	- -	- -	- -	8E-07	Developmental	2E-02	- -	- -	2E-02
			4,4'-DDT	7E-08	- -	- -	- -	7E-08	Liver	1E-03	- -	- -	1E-03
			Aldrin	4E-07	- -	- -	- -	4E-07	Liver	2E-03	- -	- -	2E-03
			alpha-Chlordane	1E-07	- -	- -	- -	1E-07	Liver	2E-03	- -	- -	2E-03
			Aroclor-1248	6E-07	- -	- -	- -	6E-07	Immune System	4E-02	- -	- -	4E-02
			Aroclor-1254	1E-05	- -	- -	- -	1E-05	Immune System	7E-01	- -	- -	7E-01
			Aroclor-1260	6E-06	- -	- -	- -	6E-06	Immune System	4E-01	- -	- -	4E-01
			Dieldrin	2E-06	- -	- -	- -	2E-06	Liver	5E-03	- -	- -	5E-03
			Heptachlor epoxide	2E-07	- -	- -	- -	2E-07	Liver	4E-03	- -	- -	4E-03
			Arsenic	1E-05	- -	- -	- -	1E-05	Skin	5E-02	- -	- -	5E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	3E-05	- -	- -	- -	3E-05		1E+00	- -	- -	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 1E+00

Total Skin HI =	5E-02
Total Nervous System HI =	2E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.32.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 6											
			4,4'-DDD	2E-08	- -	- -	- -	2E-08	Immune System	4E-04	- -	- -	4E-04
			4,4'-DDE	9E-08	- -	- -	- -	9E-08	Developmental	8E-03	- -	- -	8E-03
			4,4'-DDT	8E-09	- -	- -	- -	8E-09	Liver	4E-04	- -	- -	4E-04
			Aldrin	4E-08	- -	- -	- -	4E-08	Liver	7E-04	- -	- -	7E-04
			alpha-Chlordane	1E-08	- -	- -	- -	1E-08	Liver	7E-04	- -	- -	7E-04
			Aroclor-1248	4E-08	- -	- -	- -	4E-08	Immune System	2E-02	- -	- -	2E-02
			Aroclor-1254	6E-07	- -	- -	- -	6E-07	Immune System	3E-01	- -	- -	3E-01
			Aroclor-1260	4E-07	- -	- -	- -	4E-07	Immune System	2E-01	- -	- -	2E-01
			Dieldrin	2E-07	- -	- -	- -	2E-07	Liver	2E-03	- -	- -	2E-03
			Heptachlor epoxide	2E-08	- -	- -	- -	2E-08	Liver	2E-03	- -	- -	2E-03
			Arsenic	1E-06	- -	- -	- -	1E-06	Skin	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	2E-06	- -	- -	- -	2E-06		5E-01	- -	- -	5E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-01
	Exposure Medium Total							2E-06					5E-01
Medium Total								2E-06					5E-01
Receptor Total								2E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	2E-02
Total Nervous System HI =	6E-02
Total Immune System HI =	4E-01
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	8E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.33.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	- -	7E-09	- -	7E-09	Liver	- -	- -	3E-04	3E-04
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	3E-03	3E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-02	4E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	6E-03	6E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	4E-07	- -	4E-07		- -	- -	6E-02	6E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					6E-02
	Exposure Medium Total							4E-07					6E-02
Medium Total								4E-07					6E-02
Sediment	Sediment	Station NR											
			Arsenic	2E-05	- -	7E-06	- -	3E-05	Skin	3E-01	- -	1E-01	5E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-04	- -	- -	7E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	2E-05	- -	7E-06	- -	3E-05		4E-01	- -	1E-01	6E-01
			Radionuclide Total										
		Exposure Point Total						3E-05					6E-01
	Exposure Medium Total							3E-05					6E-01
Medium Total								3E-05					6E-01
Soil	Surface Soil	Station NR											
			Arsenic	3E-05	- -	7E-06	- -	4E-05	Skin	6E-01	- -	1E-01	7E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	7E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	5E-02	- -	- -	5E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	3E-05	- -	7E-06	- -	4E-05		8E-01	- -	1E-01	9E-01
			Radionuclide Total										
		Exposure Point Total						4E-05					9E-01
	Exposure Medium Total							4E-05					9E-01
Medium Total								4E-05					9E-01
Receptor Total								7E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-05

Total Hazard Across All Media: 1E+00

Total Skin HI =	1E+00
Total Nervous System HI =	8E-02
Total Immune System HI =	8E-04
Total Kidney HI =	8E-02
Total Blood HI =	3E-03
Total General Toxicity HI =	8E-04
Total Liver HI =	3E-04
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.33.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station NR											
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	9E-02	- -	6E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-05	- -	- -	4E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-04	- -	- -	8E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Soil	Surface Soil	Station NR											
			Arsenic	3E-06	- -	1E-06	- -	4E-06	Skin	2E-01	- -	5E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	2E-03	3E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	3E-06	- -	1E-06	- -	4E-06		2E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					2E-01
	Exposure Medium Total							4E-06					2E-01
Medium Total								4E-06					2E-01
Receptor Total								7E-06					4E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 4E-01

Total Skin HI =	4E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	2E-04
Total Kidney HI =	2E-02
Total Blood HI =	8E-04
Total General Toxicity HI =	2E-04
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.34.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	- -	7E-09	- -	7E-09	Liver	- -	- -	3E-04	3E-04
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	3E-03	3E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-02	4E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	6E-03	6E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	4E-07	- -	4E-07		- -	- -	6E-02	6E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					6E-02
	Exposure Medium Total							4E-07					6E-02
Medium Total								4E-07					6E-02
Sediment	Sediment	Station 14											
			Benzo(a)anthracene	9E-08	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	8E-07	- -	6E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-09	- -	8E-09	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-04	- -	9E-05	2E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Arsenic	7E-06	- -	2E-06	- -	9E-06	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-04	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chemical Total	8E-06	- -	3E-06	- -	1E-05		2E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Receptor Total								1E-05					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 3E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	8E-04
Total Kidney HI =	2E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	8E-04
Total Liver HI =	3E-04
Total Gastrointestinal System HI =	4E-02
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.34.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 14											
			Benzo(a)anthracene	7E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	6E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	7E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-05	- -	3E-05	4E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	4E-07	- -	3E-07	- -	8E-07	Skin	2E-02	- -	2E-02	4E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-05	- -	- -	5E-05
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	7E-04	8E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-05	- -	- -	2E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-04	- -	- -	4E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-04	- -	- -	2E-04
			Chemical Total	5E-07	- -	4E-07	- -	1E-06		3E-02	- -	2E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						1E-06					5E-02
	Exposure Medium Total							1E-06					5E-02
Medium Total								1E-06					5E-02
Receptor Total								1E-06					6E-02

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 6E-02

Total Skin HI =	4E-02
Total Nervous System HI =	3E-03
Total Immune System HI =	2E-04
Total Kidney HI =	4E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	5E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.35.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station 22/TT-22											
			Tetrachloroethene	3E-07	- -	- -	- -	3E-07	Liver	4E-04	- -	- -	4E-04
			Trichloroethene	5E-08	- -	- -	- -	5E-08	Liver	3E-03	- -	- -	3E-03
			Benzo(a)anthracene	4E-08	- -	3E-08	- -	7E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-07	- -	2E-07	- -	5E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	7E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	2E-08	- -	5E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	3E-05	- -	3E-05	6E-05
			Aroclor 1260	1E-08	- -	9E-09	- -	2E-08	Immune System	2E-03	- -	2E-03	4E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E+00	- -	- -	1E+00
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	6E-05	- -	- -	6E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	1E-05	- -	4E-06	- -	2E-05		1E+00	- -	7E-02	2E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					2E+00
	Exposure Medium Total							2E-05					2E+00
Medium Total								2E-05					2E+00
Receptor Total								2E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	2E-05
Using the MADEP slope factor for PCE, the risk for this receptor would change to	2E-05
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to	2E-05

Total Hazard Across All Media	2E+00
Total Skin HI =	3E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	5E-03
Total Kidney HI =	7E-02
Total Blood HI =	1E+00
Total General Toxicity HI =	9E-04
Total Liver HI =	4E-03
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.35.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 22/TT-22											
			Tetrachloroethene	1E-08	- -	- -	- -	1E-08	Liver	7E-05	- -	- -	7E-05
			Trichloroethene	3E-09	- -	- -	- -	3E-09	Liver	6E-04	- -	- -	6E-04
			Benzo(a)anthracene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	3E-09	- -	4E-09	- -	7E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-10	- -	5E-10	- -	8E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-06	- -	7E-06	1E-05
			Aroclor 1260	3E-10	- -	5E-10	- -	7E-10	Immune System	3E-04	- -	5E-04	9E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Arsenic	6E-07	- -	4E-07	- -	1E-06	Skin	3E-02	- -	2E-02	5E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	2E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-04	- -	- -	2E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-04	- -	- -	4E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-05	- -	- -	8E-05
			Chemical Total	6E-07	- -	4E-07	- -	1E-06		9E-02	- -	2E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					1E-01
	Exposure Medium Total							1E-06					1E-01
Medium Total								1E-06					1E-01
Receptor Total								1E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	1E-06
Using the MADEP slope factor for PCE, the risk for this receptor would change to	1E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	1E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	1E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	1E-06

Total Hazard Across All Media	1E-01
Total Skin HI =	5E-02
Total Nervous System HI =	3E-03
Total Immune System HI =	1E-03
Total Kidney HI =	1E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	2E-04
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.36.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 13/TT-27 (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station 13/TT-27	Trichloroethene	3E-09	- -	- -	- -	3E-09	Liver	2E-04	- -	- -	2E-04
			Benzo(a)anthracene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-06	- -	1E-06	- -	3E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	3E-07	- -	3E-07	- -	6E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-08	- -	2E-08	- -	5E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-07	- -	9E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-04	- -	9E-05	2E-04
			Aroclor 1254	2E-08	- -	N/A	- -	2E-08	Immune System	3E-03	- -	3E-03	6E-03
			Aroclor 1260	1E-07	- -	1E-07	- -	2E-07	Immune System	2E-02	- -	2E-02	4E-02
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-01	- -	- -	2E-01
			Arsenic	5E-04	- -	2E-04	- -	7E-04	Skin	9E+00	- -	3E+00	1E+01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-03	- -	- -	5E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-02	- -	- -	8E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-01	- -	- -	3E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	7E-02	- -	- -	7E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	5E-04	- -	2E-04	- -	7E-04		1E+01	- -	3E+00	1E+01
			Radionuclide Total										
		Exposure Point Total						7E-04					1E+01
	Exposure Medium Total							7E-04					1E+01
Medium Total								7E-04					1E+01
Receptor Total								7E-04					1E+01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-04

Total Hazard Across All Media: 1E+01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 7E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 7E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 7E-04

Total Skin HI =	1E+01
Total Nervous System HI =	3E-01
Total Immune System HI =	5E-02
Total Kidney HI =	2E-01
Total Blood HI =	3E-01
Total General Toxicity HI =	3E-03
Total Liver HI =	6E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	5E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.36.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 13/TT-27 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 13/TT-27	Trichloroethene	8E-11	- -	- -	- -	8E-11	Liver	2E-05	- -	- -	2E-05
			Benzo(a)anthracene	9E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	9E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-08	- -	3E-08	- -	5E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-09	- -	2E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-05	- -	3E-05	5E-05
			Aroclor 1254	1E-10	- -	3E-10	- -	4E-10	Immune System	2E-04	- -	3E-04	5E-04
			Aroclor 1260	2E-09	- -	3E-09	- -	4E-09	Immune System	2E-03	- -	3E-03	5E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	3E-05	- -	2E-05	- -	5E-05	Skin	1E+00	- -	1E+00	2E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	3E-05	- -	2E-05	- -	5E-05		2E+00	- -	1E+00	3E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					3E+00
	Exposure Medium Total							5E-05					3E+00
Medium Total								5E-05					3E+00
Receptor Total								5E-05					3E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 3E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 5E-05

Total Skin HI =	2E+00
Total Nervous System HI =	2E-02
Total Immune System HI =	6E-03
Total Kidney HI =	5E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	5E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.37.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station WH	Trichloroethene	4E-09	- -	- -	- -	4E-09	Liver	3E-04	- -	- -	3E-04
			Benzo(a)anthracene	7E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	2E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-09	- -	8E-09	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-05	- -	3E-05	7E-05
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	4E-03	- -	3E-03	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Arsenic	3E-04	- -	9E-05	- -	4E-04	Skin	5E+00	- -	2E+00	6E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	3E-02	5E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-01	- -	- -	4E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-04	- -	- -	7E-04
			Chemical Total	3E-04	- -	1E-04	- -	4E-04		5E+00	- -	2E+00	7E+00
			Radionuclide Total										
		Exposure Point Total						4E-04					7E+00
	Exposure Medium Total							4E-04					7E+00
Medium Total								4E-04					7E+00
Receptor Total								4E-04					7E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-04

Total Hazard Across All Media: 7E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 4E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 4E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 4E-04

Total Skin HI =	6E+00
Total Nervous System HI =	4E-01
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	4E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.37.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station WH	Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	4E-05	- -	- -	4E-05
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	7E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	5E-10	- -	8E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-09	- -	6E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-06	- -	8E-06	1E-05
			Aroclor 1260	4E-10	- -	7E-10	- -	1E-09	Immune System	5E-04	- -	8E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	1E-05	- -	1E-05	- -	2E-05	Skin	8E-01	- -	5E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-02	- -	- -	7E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-04	- -	- -	1E-04
			Chemical Total	1E-05	- -	1E-05	- -	2E-05		9E-01	- -	5E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					1E+00
	Exposure Medium Total							2E-05					1E+00
Medium Total								2E-05					1E+00
Receptor Total								2E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	7E-02
Total Immune System HI =	1E-03
Total Kidney HI =	5E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	7E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.38.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-1 (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station NT-1	Trichloroethene	4E-09	- -	- -	- -	4E-09	Liver	3E-04	- -	- -	3E-04
			Benzo(a)anthracene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	9E-07	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	2E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-08	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-05	- -	3E-05	7E-05
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	4E-03	- -	3E-03	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-02	- -	- -	5E-02
			Arsenic	3E-04	- -	1E-04	- -	5E-04	Skin	6E+00	- -	2E+00	8E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-02	- -	- -	7E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-01	- -	- -	2E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-04	- -	- -	9E-04
			Chemical Total	3E-04	- -	1E-04	- -	5E-04		6E+00	- -	2E+00	9E+00
			Radionuclide Total										
		Exposure Point Total						5E-04					9E+00
	Exposure Medium Total							5E-04					9E+00
Medium Total								5E-04					9E+00
Receptor Total								5E-04					9E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-04

Total Hazard Across All Media: 9E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 5E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 5E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 5E-04

Total Skin HI =	8E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	3E-01
Total General Toxicity HI =	4E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.38.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-1 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station NT-1	Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	4E-05	- -	- -	4E-05
			Benzo(a)anthracene	3E-09	- -	6E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	6E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	4E-10	- -	6E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	3E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-06	- -	5E-06	9E-06
			Aroclor 1260	3E-10	- -	5E-10	- -	7E-10	Immune System	3E-04	- -	5E-04	9E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	2E-05	- -	1E-05	- -	3E-05	Skin	1E+00	- -	7E-01	2E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	9E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	2E-05	- -	1E-05	- -	3E-05		1E+00	- -	7E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					2E+00
	Exposure Medium Total							3E-05					2E+00
Medium Total								3E-05					2E+00
Receptor Total								3E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-05

Total Skin HI =	2E+00
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-03
Total Kidney HI =	3E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	7E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.39.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-2 (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station NT-2	Trichloroethene	4E-09	- -	- -	- -	4E-09	Liver	3E-04	- -	- -	3E-04
			Benzo(a)anthracene	5E-08	- -	4E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-09	- -	8E-09	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-05	- -	3E-05	7E-05
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	4E-03	- -	3E-03	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-02	- -	- -	5E-02
			Arsenic	2E-04	- -	9E-05	- -	3E-04	Skin	4E+00	- -	1E+00	6E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-03	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	8E-02	- -	- -	8E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chemical Total	2E-04	- -	9E-05	- -	3E-04		5E+00	- -	1E+00	6E+00
			Radionuclide Total										
		Exposure Point Total						3E-04					6E+00
	Exposure Medium Total							3E-04					6E+00
Medium Total								3E-04					6E+00
Receptor Total								3E-04					6E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-04

Total Hazard Across All Media: 6E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-04

Total Skin HI =	6E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	7E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.39.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-2 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station NT-2	Trichloroethene	1E-10	- -	- -	- -	1E-10	Liver	3E-05	- -	- -	3E-05
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-08	- -	4E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	8E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	5E-10	- -	8E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	- -	3E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	9E-06	2E-05
			Aroclor 1260	3E-10	- -	6E-10	- -	9E-10	Immune System	4E-04	- -	7E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	1E-05	- -	9E-06	- -	2E-05	Skin	7E-01	- -	5E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	7E-03	8E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-05	- -	9E-06	- -	2E-05		8E-01	- -	5E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					1E+00
	Exposure Medium Total							2E-05					1E+00
Medium Total								2E-05					1E+00
Receptor Total								2E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	2E-05
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to	2E-05

Total Hazard Across All Media	1E+00
Total Skin HI =	1E+00
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-03
Total Kidney HI =	3E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.40.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-3 (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station NT-3	Trichloroethene	4E-09	- -	- -	- -	4E-09	Liver	3E-04	- -	- -	3E-04
			Benzo(a)anthracene	7E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	2E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-09	- -	8E-09	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-05	- -	3E-05	7E-05
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	4E-03	- -	3E-03	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-02	- -	- -	5E-02
			Arsenic	7E-05	- -	2E-05	- -	9E-05	Skin	1E+00	- -	4E-01	2E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-02	- -	- -	7E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chemical Total	7E-05	- -	3E-05	- -	9E-05		2E+00	- -	4E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						9E-05					2E+00
	Exposure Medium Total							9E-05					2E+00
Medium Total								9E-05					2E+00
Receptor Total								1E-04					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-04

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-04

Total Skin HI =	2E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	7E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.40.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-3 (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station NT-3	Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	4E-05	- -	- -	4E-05
			Benzo(a)anthracene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-10	- -	5E-10	- -	8E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-06	- -	6E-06	1E-05
			Aroclor 1260	3E-10	- -	6E-10	- -	9E-10	Immune System	4E-04	- -	6E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	4E-06	- -	3E-06	- -	6E-06	Skin	2E-01	- -	1E-01	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	7E-03	9E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chemical Total	4E-06	- -	3E-06	- -	6E-06		3E-01	- -	1E-01	4E-01
			Radionuclide Total										
		Exposure Point Total						6E-06					4E-01
	Exposure Medium Total							6E-06					4E-01
Medium Total								6E-06					4E-01
Receptor Total								6E-06					4E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-06

Total Hazard Across All Media: 4E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-06

Total Skin HI =	3E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-03
Total Kidney HI =	3E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.41.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station WG	Trichloroethene	3E-09	- -	- -	- -	3E-09	Liver	2E-04	- -	- -	2E-04
			Benzo(a)anthracene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-07	- -	2E-07	- -	4E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	4E-08	- -	3E-08	- -	7E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-09	- -	2E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-05	- -	8E-06	2E-05
			Aroclor 1260	4E-09	- -	3E-09	- -	7E-09	Immune System	8E-04	- -	6E-04	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Arsenic	4E-05	- -	1E-05	- -	5E-05	Skin	6E-01	- -	2E-01	8E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-03	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chemical Total	4E-05	- -	1E-05	- -	5E-05		9E-01	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					1E+00
	Exposure Medium Total							5E-05					1E+00
Medium Total								5E-05					1E+00
Receptor Total								5E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	5E-05
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to	5E-05

Total Hazard Across All Media	1E+00
Total Skin HI =	8E-01
Total Nervous System HI =	7E-02
Total Immune System HI =	3E-03
Total Kidney HI =	2E-01
Total Blood HI =	5E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	6E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.41.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station WG	Trichloroethene	2E-10	- -	- -	- -	2E-10	Liver	3E-05	- -	- -	3E-05
			Benzo(a)anthracene	9E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-10	- -	2E-10	- -	4E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-06	- -	3E-06	5E-06
			Aroclor 1260	1E-10	- -	2E-10	- -	3E-10	Immune System	1E-04	- -	2E-04	3E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	1E-01	- -	7E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	7E-03	8E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	8E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	5E-04
Total Kidney HI =	3E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	6E-04
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.42.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WW (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station WW											
			Benzo(b)fluoranthene	4E-08	- -	3E-08	- -	8E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-01	- -	- -	2E-01
			Arsenic	7E-06	- -	3E-06	- -	1E-05	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-02	- -	- -	3E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Chemical Total	7E-06	- -	3E-06	- -	1E-05		6E-01	- -	7E-02	7E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					7E-01
	Exposure Medium Total							1E-05					7E-01
Medium Total								1E-05					7E-01
Receptor Total								1E-05					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 7E-01

Total Skin HI =	2E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-03
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	2E-02
Total Liver HI =	4E-04
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	3E-02
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.42.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WW (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station WW											
			Benzo(b)fluoranthene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	4E-10	- -	7E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-07	- -	2E-07	- -	5E-07	Skin	2E-02	- -	1E-02	3E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-03	- -	- -	5E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-03	- -	- -	2E-03
			Chemical Total	3E-07	- -	2E-07	- -	5E-07		8E-02	- -	2E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						5E-07					1E-01
	Exposure Medium Total							5E-07					1E-01
Medium Total								5E-07					1E-01
Receptor Total								5E-07					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-07

Total Hazard Across All Media: 1E-01

Total Skin HI =	3E-02
Total Nervous System HI =	6E-03
Total Immune System HI =	2E-04
Total Kidney HI =	3E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	5E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.43.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station JY (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	4E-04	4E-04
			Arsenic	--	- -	7E-07	- -	7E-07	Skin	- -	- -	6E-03	6E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-02	6E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	7E-07	- -	7E-07		- -	- -	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
	Exposure Medium Total							7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station JY											
			Aroclor 1254	5E-07	- -	N/A	- -	5E-07	Immune System	1E-01	- -	8E-02	2E-01
			Aroclor 1260	5E-07	- -	5E-07	- -	1E-06	Immune System	1E-01	- -	8E-02	2E-01
			Antimony	N/A	- -	- -	- -	N/A	Blood	7E-02	- -	- -	7E-02
			Arsenic	4E-05	- -	1E-05	- -	5E-05	Skin	7E-01	- -	2E-01	9E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-03	- -	- -	4E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	5E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-03	- -	- -	5E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	7E-02	- -	- -	7E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-04	- -	- -	7E-04
			Chemical Total	4E-05	- -	1E-05	- -	5E-05		1E+00	- -	4E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					2E+00
	Exposure Medium Total							5E-05					2E+00
Medium Total								5E-05					2E+00
Receptor Total								5E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	9E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	4E-01
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	6E-03
Total Liver HI =	4E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	4E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.43.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station JY (Reach 1)	Heptachlor epoxide	--	- -	8E-10	- -	8E-10	Liver	- -	- -	9E-05	9E-05
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						3E-08					1E-02
	Exposure Medium Total							3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station JY											
			Aroclor 1254	1E-08	- -	2E-08	- -	4E-08	Immune System	2E-02	- -	3E-02	4E-02
			Aroclor 1260	1E-08	- -	2E-08	- -	4E-08	Immune System	2E-02	- -	3E-02	4E-02
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	2E-06	- -	1E-06	- -	4E-06	Skin	1E-01	- -	8E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-04	- -	- -	6E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-04	- -	- -	1E-04
			Chemical Total	2E-06	- -	2E-06	- -	4E-06		2E-01	- -	1E-01	3E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					3E-01
	Exposure Medium Total							4E-06					3E-01
Medium Total								4E-06					3E-01
Receptor Total								4E-06					4E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-06

Total Hazard Across All Media: 4E-01

Total Skin HI =	2E-01
Total Nervous System HI =	7E-03
Total Immune System HI =	9E-02
Total Kidney HI =	4E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	9E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	6E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.44.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	- -	1E-08	- -	1E-08	Liver	- -	- -	5E-04	5E-04
			Arsenic	--	- -	9E-07	- -	9E-07	Skin	- -	- -	8E-03	8E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-03	5E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	8E-02	8E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-03	2E-03
			Chemical Total	--	- -	9E-07	- -	9E-07		- -	- -	1E-01	1E-01
			Radionuclide Total										
		Exposure Point Total						9E-07					1E-01
	Exposure Medium Total							9E-07					1E-01
Medium Total								9E-07					1E-01
Sediment	Sediment	Station WS/WSS											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	4E-05	- -	1E-05	- -	6E-05	Skin	7E-01	- -	2E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-03	- -	- -	4E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	5E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-04	- -	- -	6E-04
			Chemical Total	4E-05	- -	1E-05	- -	6E-05		1E+00	- -	3E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					1E+00
	Exposure Medium Total							6E-05					1E+00
Medium Total								6E-05					1E+00
Soil	Surface Soil	Station WS/WSS											
			Arsenic	3E-06	- -	7E-07	- -	4E-06	Skin	6E-02	- -	1E-02	7E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-04	- -	2E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	3E-06	- -	7E-07	- -	4E-06		2E-01	- -	1E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					2E-01
	Exposure Medium Total							4E-06					2E-01
Medium Total								4E-06					2E-01
Receptor Total								6E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	8E-02
Total Immune System HI =	2E-03
Total Kidney HI =	2E-01
Total Blood HI =	9E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	5E-04
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	4E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.44.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	- -	2E-09	- -	2E-09	Liver	- -	- -	3E-04	3E-04
			Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	3E-04	3E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-02	3E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	6E-04	6E-04
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	4E-02	4E-02
			Radionuclide Total										
		Exposure Point Total						1E-07					4E-02
	Exposure Medium Total							1E-07					4E-02
Medium Total								1E-07					4E-02
Sediment	Sediment	Station WS/WSS											
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	5E-06	- -	4E-06	- -	8E-06	Skin	3E-01	- -	2E-01	5E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	5E-06	- -	4E-06	- -	8E-06		4E-01	- -	2E-01	6E-01
			Radionuclide Total										
		Exposure Point Total						8E-06					6E-01
	Exposure Medium Total							8E-06					6E-01
Medium Total								8E-06					6E-01
Soil	Surface Soil	Station WS/WSS											
			Arsenic	2E-06	- -	2E-07	- -	2E-06	Skin	5E-02	- -	8E-03	6E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	6E-04	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-03	- -	- -	9E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	2E-06	- -	2E-07	- -	2E-06		1E-01	- -	9E-03	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								1E-05					8E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 8E-01

Total Skin HI =	5E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	6E-04
Total Kidney HI =	1E-01
Total Blood HI =	5E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	3E-04
Total Gastrointestinal System HI =	4E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.45.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station TT-30											
			Arsenic	5E-05	- -	2E-05	- -	7E-05	Skin	9E-01	- -	3E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	8E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-01	- -	- -	4E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-03	- -	- -	1E-03
			Chemical Total	5E-05	- -	2E-05	- -	7E-05		1E+00	- -	3E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						7E-05					2E+00
	Exposure Medium Total							7E-05					2E+00
Medium Total								7E-05					2E+00
Receptor Total								7E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-05

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 7E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 7E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 7E-05

Total Skin HI =	1E+00
Total Nervous System HI =	4E-01
Total Immune System HI =	9E-05
Total Kidney HI =	8E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.45.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station TT-30											
			Arsenic	8E-06	- -	6E-06	- -	1E-05	Skin	4E-01	- -	3E-01	7E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	8E-03	9E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-04	- -	- -	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	5E-04	- -	- -	5E-04
			Chemical Total	8E-06	- -	6E-06	- -	1E-05		7E-01	- -	3E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						1E-05					1E+00
	Exposure Medium Total							1E-05					1E+00
Medium Total								1E-05					1E+00
Receptor Total								1E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	7E-01
Total Nervous System HI =	2E-01
Total Immune System HI =	4E-05
Total Kidney HI =	4E-02
Total Blood HI =	5E-03
Total General Toxicity HI =	9E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.46.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-31 (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Sediment	Sediment	Station TT-31											
			Arsenic	4E-06	- -	2E-06	- -	6E-06	Skin	7E-02	- -	2E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-03	- -	- -	3E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	8E-02	- -	- -	8E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	4E-06	- -	2E-06	- -	6E-06		2E-01	- -	4E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						6E-06					3E-01
	Exposure Medium Total							6E-06					3E-01
Medium Total								6E-06					3E-01
Receptor Total								6E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-06

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-06

Total Skin HI =	1E-01
Total Nervous System HI =	6E-02
Total Immune System HI =	3E-04
Total Kidney HI =	1E-01
Total Blood HI =	3E-03
Total General Toxicity HI =	3E-03
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.46.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-31 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station TT-31											
			Arsenic	1E-07	- -	9E-08	- -	2E-07	Skin	7E-03	- -	4E-03	1E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	4E-03	5E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-05	- -	- -	3E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-04	- -	- -	9E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	1E-07	- -	9E-08	- -	2E-07		3E-02	- -	9E-03	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
	Exposure Medium Total							2E-07					3E-02
Medium Total								2E-07					3E-02
Receptor Total								2E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-07
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-07
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-07

Total Skin HI =	1E-02
Total Nervous System HI =	7E-03
Total Immune System HI =	4E-05
Total Kidney HI =	2E-02
Total Blood HI =	4E-04
Total General Toxicity HI =	3E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.47.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-01											
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	4E-02	6E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-02	- -	- -	6E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-01	- -	- -	2E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chemical Total	1E-05	- -	4E-06	- -	1E-05		6E-01	- -	1E-01	7E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					7E-01
	Exposure Medium Total							1E-05					7E-01
Medium Total								1E-05					7E-01
Receptor Total								1E-05					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 7E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	3E-01
Total Nervous System HI =	9E-02
Total Immune System HI =	4E-04
Total Kidney HI =	3E-01
Total Blood HI =	7E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.47.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-01											
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Arsenic	1E-06	- -	9E-07	- -	2E-06	Skin	7E-02	- -	5E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-04	- -	- -	6E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	3E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-04	- -	- -	7E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	1E-06	- -	9E-07	- -	2E-06		2E-01	- -	8E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					3E-01
	Exposure Medium Total							2E-06					3E-01
Medium Total								2E-06					3E-01
Receptor Total								2E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-06

Total Skin HI =	1E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	3E-02
Total General Toxicity HI =	9E-04
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	6E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.48.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-02											
			Antimony	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Arsenic	7E-06	- -	3E-06	- -	1E-05	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-03	- -	- -	5E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	7E-06	- -	3E-06	- -	1E-05		2E-01	- -	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Receptor Total								1E-05					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	9E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	5E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.48.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-02	Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	9E-07	- -	7E-07	- -	2E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	7E-05	- -	- -	7E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	9E-07	- -	7E-07	- -	2E-06		9E-02	- -	5E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-06

Total Skin HI =	8E-02
Total Nervous System HI =	8E-03
Total Immune System HI =	1E-04
Total Kidney HI =	4E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	4E-04
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.49.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-03											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	1E-04	- -	4E-05	- -	1E-04	Skin	2E+00	- -	6E-01	3E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	6E-02	8E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-03	- -	- -	4E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	1E-04	- -	4E-05	- -	1E-04		2E+00	- -	7E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						1E-04					3E+00
	Exposure Medium Total							1E-04					3E+00
Medium Total								1E-04					3E+00
Receptor Total								1E-04					3E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	1E-04
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	1E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	1E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to	1E-04

Total Hazard Across All Media	3E+00
Total Skin HI =	3E+00
Total Nervous System HI =	7E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	6E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.49.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-03											
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	1E-05	- -	9E-06	- -	2E-05	Skin	7E-01	- -	5E-01	1E+00
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	7E-04	- -	- -	7E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-03	- -	4E-02	5E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chemical Total	1E-05	- -	9E-06	- -	2E-05		8E-01	- -	5E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						2E-05					1E+00
	Exposure Medium Total							2E-05					1E+00
Medium Total								2E-05					1E+00
Receptor Total								2E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.50.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-04											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	1E-05	- -	4E-05	Skin	6E-01	- -	2E-01	8E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	4E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-03	- -	- -	7E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	3E-05	- -	1E-05	- -	4E-05		1E+00	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						4E-05					1E+00
	Exposure Medium Total							4E-05					1E+00
Medium Total								4E-05					1E+00
Receptor Total								5E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 4E-05

Total Skin HI =	8E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	8E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.50.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-04											
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	4E-06	- -	3E-06	- -	7E-06	Skin	2E-01	- -	1E-01	4E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Chemical Total	4E-06	- -	3E-06	- -	7E-06		3E-01	- -	2E-01	5E-01
			Radionuclide Total										
		Exposure Point Total						7E-06					5E-01
	Exposure Medium Total							7E-06					5E-01
Medium Total								7E-06					5E-01
Receptor Total								7E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 7E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 7E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 7E-06

Total Skin HI =	4E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	8E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.51.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	2E-05	- -	4E-06	- -	2E-05	Skin	4E-01	- -	6E-02	4E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	3E-03	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-02	- -	- -	9E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	2E-05	- -	4E-06	- -	2E-05		6E-01	- -	7E-02	6E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					6E-01
	Exposure Medium Total							2E-05					6E-01
Medium Total								2E-05					6E-01
Receptor Total								2E-05					6E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.51.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	1E-05	- -	9E-07	- -	1E-05	Skin	3E-01	- -	5E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-02	- -	- -	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-04	- -	- -	8E-04
			Chemical Total	1E-05	- -	9E-07	- -	1E-05		4E-01	- -	5E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					5E-01
	Exposure Medium Total							1E-05					5E-01
Medium Total								1E-05					5E-01
Receptor Total								1E-05					5E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.52.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	- -	3E-07	- -	3E-07	Liver	- -	- -	9E-03	9E-03
			Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-02	2E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	6E-07	- -	6E-07		- -	- -	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-06											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	9E-06	- -	3E-05	Skin	5E-01	- -	1E-01	6E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	7E-02	1E-01
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	6E-04	- -	- -	6E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	4E-04	- -	- -	4E-04
			Chemical Total	3E-05	- -	9E-06	- -	3E-05		8E-01	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-05

Total Skin HI =	6E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	3E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	3E-03
Total Liver HI =	9E-03
Total Gastrointestinal System HI =	2E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.52.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	- -	4E-08	- -	4E-08	Liver	- -	- -	5E-03	5E-03
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	8E-08	- -	8E-08		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						8E-08					2E-02
	Exposure Medium Total							8E-08					2E-02
Medium Total								8E-08					2E-02
Sediment	Sediment	Station CB-06											
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	3E-06	- -	2E-06	- -	5E-06	Skin	2E-01	- -	1E-01	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	5E-04	- -	- -	5E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	5E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-04	- -	- -	2E-04
			Chemical Total	3E-06	- -	2E-06	- -	5E-06		3E-01	- -	2E-01	5E-01
			Radionuclide Total										
		Exposure Point Total						5E-06					5E-01
	Exposure Medium Total							5E-06					5E-01
Medium Total								5E-06					5E-01
Receptor Total								5E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-06

Total Hazard Across All Media: 5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 5E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 5E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 5E-06

Total Skin HI =	3E-01
Total Nervous System HI =	8E-03
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	5E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.53.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station CB-07											
			Arsenic	9E-06	- -	3E-06	- -	1E-05	Skin	2E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	8E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	9E-06	- -	3E-06	- -	1E-05		2E-01	- -	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Receptor Total								1E-05					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	9E-05
Total Kidney HI =	6E-02
Total Blood HI =	1E-03
Total General Toxicity HI =	7E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.53.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station CB-07											
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	9E-02	- -	6E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	5E-03	6E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-03	- -	- -	1E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	1E-01
Total Nervous System HI =	6E-03
Total Immune System HI =	4E-05
Total Kidney HI =	3E-02
Total Blood HI =	5E-04
Total General Toxicity HI =	4E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.54.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	1E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-09	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	9E-06	- -	7E-06	2E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	3E-05	- -	1E-05	- -	4E-05	Skin	6E-01	- -	2E-01	8E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-03	- -	- -	1E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	2E-02	3E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-03	- -	- -	1E-03
			Chemical Total	3E-05	- -	1E-05	- -	4E-05		7E-01	- -	2E-01	9E-01
			Radionuclide Total										
		Exposure Point Total						4E-05					9E-01
	Exposure Medium Total							4E-05					9E-01
Medium Total								4E-05					9E-01
Receptor Total								4E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 4E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 4E-05

Total Skin HI =	8E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	3E-04
Total Kidney HI =	9E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	1E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.54.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	7E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	3E-09	- -	4E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	7E-11	- -	1E-10	- -	2E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-10	- -	7E-10	- -	1E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-06	- -	2E-06	4E-06
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	2E-06	- -	1E-06	- -	3E-06	Skin	1E-01	- -	6E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	6E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-05	- -	- -	9E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-05	- -	- -	6E-05
			Chemical Total	2E-06	- -	1E-06	- -	3E-06		1E-01	- -	7E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 3E-06

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	4E-05
Total Kidney HI =	2E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	3E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.55.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Sediment	Sediment	Station 09	Benzo(a)anthracene	6E-08	- -	5E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	6E-07	- -	5E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	- -	8E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	1E-04	- -	1E-04	2E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Arsenic	5E-06	- -	2E-06	- -	6E-06	Skin	8E-02	- -	3E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	7E-04	- -	- -	7E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	2E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	6E-05	- -	- -	6E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	7E-04	- -	- -	7E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	6E-06	- -	3E-06	- -	8E-06		2E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						8E-06					2E-01
	Exposure Medium Total							8E-06					2E-01
Medium Total								8E-06					2E-01
Receptor Total								9E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 9E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 9E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 9E-06

Total Skin HI =	1E-01
Total Nervous System HI =	7E-02
Total Immune System HI =	3E-04
Total Kidney HI =	3E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.55.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station 09	Benzo(a)anthracene	3E-09	- -	5E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-08	- -	6E-08	- -	9E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	9E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	5E-09	- -	9E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	3E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-06	- -	5E-06	9E-06
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	3E-07	- -	2E-07	- -	4E-07	Skin	1E-02	- -	9E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	7E-04	9E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-04	- -	- -	9E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-04	- -	- -	2E-04
			Chemical Total	3E-07	- -	3E-07	- -	6E-07		2E-02	- -	1E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					3E-02
	Exposure Medium Total							6E-07					3E-02
Medium Total								6E-07					3E-02
Receptor Total								6E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-07

Total Hazard Across All Media: 4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-07
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-07
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-07

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	4E-05
Total Kidney HI =	5E-03
Total Blood HI =	5E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.56.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	- -	2E-07	- -	2E-07	Liver	- -	- -	7E-03	7E-03
			Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	5E-07	- -	5E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Soil	Surface Soil	Station DA											
			Arsenic	5E-05	- -	1E-05	- -	6E-05	Skin	9E-01	- -	2E-01	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	1E-02	2E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-01	- -	- -	2E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-02	- -	- -	6E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	5E-05	- -	1E-05	- -	6E-05		1E+00	- -	2E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					2E+00
	Exposure Medium Total							6E-05					2E+00
Medium Total								6E-05					2E+00
Receptor Total								6E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 6E-05

Total Hazard Across All Media: 2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 6E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 6E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 6E-05

Total Skin HI =	1E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	3E-04
Total Kidney HI =	9E-02
Total Blood HI =	6E-02
Total General Toxicity HI =	N/A
Total Liver HI =	7E-03
Total Gastrointestinal System HI =	2E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.56.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Soil	Surface Soil	Station DA											
			Arsenic	3E-06	- -	1E-06	- -	4E-06	Skin	2E-01	- -	5E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-02	- -	- -	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Chemical Total	3E-06	- -	1E-06	- -	4E-06		2E-01	- -	5E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					3E-01
	Exposure Medium Total							4E-06					3E-01
Medium Total								4E-06					3E-01
Receptor Total								4E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media	4E-06
Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	4E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	4E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	4E-06

Total Hazard Across All Media	3E-01
Total Skin HI =	2E-01
Total Nervous System HI =	7E-03
Total Immune System HI =	4E-05
Total Kidney HI =	1E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.57.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	1E-04	1E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station AM											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Arsenic	5E-06	- -	2E-06	- -	7E-06	Skin	1E-01	- -	3E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	4E-03	6E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	5E-06	- -	2E-06	- -	7E-06		1E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						7E-06					2E-01
	Exposure Medium Total							7E-06					2E-01
Medium Total								7E-06					2E-01
Receptor Total								8E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 8E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 8E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 8E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 8E-06

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	9E-05
Total Kidney HI =	2E-02
Total Blood HI =	6E-03
Total General Toxicity HI =	5E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.57.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	- -	1E-08	- -	1E-08	Liver	- -	- -	2E-03	2E-03
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Cadmium	--	- -	N/A	- -	N/A	Kidney	- -	- -	6E-05	6E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station AM											
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	9E-07	- -	6E-07	- -	2E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-04	- -	- -	2E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-04	- -	4E-03	5E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-05	- -	- -	5E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	9E-07	- -	6E-07	- -	2E-06		7E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 2E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 2E-06

Total Skin HI =	8E-02
Total Nervous System HI =	1E-02
Total Immune System HI =	4E-05
Total Kidney HI =	1E-02
Total Blood HI =	3E-03
Total General Toxicity HI =	3E-04
Total Liver HI =	2E-03
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	2E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.58.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	9E-04	9E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Sediment	Sediment	Station KF											
			Arsenic	7E-06	- -	3E-06	- -	1E-05	Skin	1E-01	- -	4E-02	2E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	3E-03	5E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	6E-04	- -	- -	6E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	7E-06	- -	3E-06	- -	1E-05		2E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Soil	Surface Soil	Station KF											
			Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	2E-01	- -	4E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	4E-03	7E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	6E-02	- -	- -	6E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		4E-01	- -	4E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					4E-01
	Exposure Medium Total							1E-05					4E-01
Medium Total								1E-05					4E-01
Receptor Total								2E-05					6E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	4E-03
Total General Toxicity HI =	7E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.58.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	- -	5E-09	- -	5E-09	Skin	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-04	4E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	5E-09	- -	5E-09		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Sediment	Sediment	Station KF	Arsenic	4E-07	- -	3E-07	- -	6E-07	Skin	2E-02	- -	1E-02	3E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	1E-03	1E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-04	- -	- -	9E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	4E-07	- -	3E-07	- -	6E-07		3E-02	- -	1E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Soil	Surface Soil	Station KF	Arsenic	6E-07	- -	2E-07	- -	9E-07	Skin	4E-02	- -	1E-02	5E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	9E-03	- -	- -	9E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-04	- -	- -	9E-04
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	6E-07	- -	2E-07	- -	9E-07		6E-02	- -	1E-02	7E-02
			Radionuclide Total										
		Exposure Point Total						9E-07					7E-02
	Exposure Medium Total							9E-07					7E-02
Medium Total								9E-07					7E-02
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	2E-02
Total Blood HI =	6E-04
Total General Toxicity HI =	1E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.59.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	9E-04	9E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Sediment	Sediment	Station 08											
			Benzo(a)anthracene	9E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	2E-07	- -	4E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-08	- -	2E-08	- -	5E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	2E-07	- -	2E-07	- -	4E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	- -	7E-08	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	4E-05	- -	3E-05	8E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	4E-06	- -	1E-06	- -	5E-06	Skin	7E-02	- -	2E-02	9E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-04	- -	- -	4E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	6E-06	- -	3E-06	- -	9E-06		2E-01	- -	2E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					2E-01
	Exposure Medium Total							9E-06					2E-01
Medium Total								9E-06					2E-01
Receptor Total								9E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 2E-01

Total Skin HI =	9E-02
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.59.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	- -	5E-09	- -	5E-09	Skin	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-04	4E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	5E-09	- -	5E-09		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Sediment	Sediment	Station 08											
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	9E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-08	- -	7E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	9E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	9E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	- -	4E-09	- -	7E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	8E-06	1E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	1E-07	- -	1E-07	- -	2E-07	Skin	8E-03	- -	5E-03	1E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	6E-05	- -	- -	6E-05
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-04	- -	- -	6E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-04	- -	- -	5E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-04	- -	- -	3E-04
			Chemical Total	2E-07	- -	2E-07	- -	4E-07		2E-02	- -	5E-03	2E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					2E-02
	Exposure Medium Total							4E-07					2E-02
Medium Total								4E-07					2E-02
Receptor Total								4E-07					3E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-07

Total Hazard Across All Media: 3E-02

Total Skin HI =	1E-02
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-03
Total Blood HI =	5E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-04
Total Cardiovascular HI =	6E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.60.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Sediment	Sediment	Station 07/DP	Trichloroethene	2E-09	- -	- -	- -	2E-09	Liver	1E-04	- -	- -	1E-04
			Benzo(a)anthracene	7E-07	- -	6E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	7E-06	- -	6E-06	- -	1E-05	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-07	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-06	- -	1E-06	- -	3E-06	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	5E-07	- -	4E-07	- -	9E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	5E-04	- -	4E-04	8E-04
			Aroclor 1260	2E-08	- -	2E-08	- -	4E-08	Immune System	5E-03	- -	4E-03	8E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Arsenic	1E-05	- -	4E-06	- -	1E-05	Skin	2E-01	- -	6E-02	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chemical Total	2E-05	- -	1E-05	- -	3E-05		4E-01	- -	8E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						3E-05					5E-01
	Exposure Medium Total							3E-05					5E-01
Medium Total								3E-05					5E-01
Soil	Surface Soil	Station 07/DP	Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	2E-01	- -	4E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-04	- -	6E-04	9E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	7E-02	- -	- -	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-02	- -	- -	9E-02
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		5E-01	- -	4E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					5E-01
	Exposure Medium Total							1E-05					5E-01
Medium Total								1E-05					5E-01
Receptor Total								5E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to: 5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to: 5E-05

Total Skin HI =	5E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	3E-03
Total Liver HI =	1E-04
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.60.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station 07/DP	Trichloroethene	8E-11	- -	- -	- -	8E-11	Liver	2E-05	- -	- -	2E-05
			Benzo(a)anthracene	4E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	4E-07	- -	6E-07	- -	1E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	6E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	6E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	7E-08	- -	1E-07	- -	2E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	- -	4E-08	- -	7E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	8E-05	- -	1E-04	2E-04
			Aroclor 1260	6E-10	- -	1E-09	- -	2E-09	Immune System	8E-04	- -	1E-03	2E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	6E-07	- -	4E-07	- -	1E-06	Skin	3E-02	- -	2E-02	5E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	4E-05	- -	- -	4E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-04	- -	- -	3E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-06	- -	1E-06	- -	3E-06		7E-02	- -	3E-02	9E-02
			Radionuclide Total										
		Exposure Point Total						3E-06					9E-02
	Exposure Medium Total							3E-06					9E-02
Medium Total								3E-06					9E-02
Soil	Surface Soil	Station 07/DP	Arsenic	6E-07	- -	2E-07	- -	9E-07	Skin	4E-02	- -	1E-02	5E-02
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-05	- -	2E-04	2E-04
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-02	- -	- -	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-04	- -	- -	8E-04
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	6E-07	- -	2E-07	- -	9E-07		8E-02	- -	1E-02	9E-02
			Radionuclide Total										
		Exposure Point Total						9E-07					9E-02
	Exposure Medium Total							9E-07					9E-02
Medium Total								9E-07					9E-02
Receptor Total								3E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to	3E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to	3E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to	3E-06

Total Skin HI =	1E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	2E-03
Total Kidney HI =	3E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	2E-05
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.61.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Sediment	Sediment	Station LP	Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	2E-05	- -	7E-06	- -	3E-05	Skin	4E-01	- -	1E-01	5E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	8E-04	- -	- -	8E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	8E-03	1E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	7E-05	- -	- -	7E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-03	- -	- -	1E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Chemical Total	2E-05	- -	7E-06	- -	3E-05		5E-01	- -	1E-01	6E-01
			Radionuclide Total										
		Exposure Point Total						3E-05					6E-01
	Exposure Medium Total							3E-05					6E-01
Medium Total								3E-05					6E-01
Receptor Total								3E-05					6E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 6E-01

Total Skin HI =	5E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	6E-02
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.61.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station LP	Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	1E-06	- -	8E-07	- -	2E-06	Skin	6E-02	- -	4E-02	1E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	6E-04	- -	3E-03	3E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-03	- -	- -	3E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-06	- -	8E-07	- -	2E-06		8E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					1E-01
	Exposure Medium Total							2E-06					1E-01
Medium Total								2E-06					1E-01
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	1E-01
Total Nervous System HI =	4E-03
Total Immune System HI =	7E-05
Total Kidney HI =	1E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.62.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-04	4E-04
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Sediment	Sediment	Station AS	Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Arsenic	2E-05	- -	6E-06	- -	2E-05	Skin	3E-01	- -	1E-01	4E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	4E-02	6E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-04	- -	- -	9E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	3E-03	- -	- -	3E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	2E-05	- -	6E-06	- -	2E-05		5E-01	- -	1E-01	7E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					7E-01
	Exposure Medium Total							2E-05					7E-01
Medium Total								2E-05					7E-01
Receptor Total								2E-05					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 7E-01

Total Skin HI =	4E-01
Total Nervous System HI =	6E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	4E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.62.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-04	5E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Sediment	Sediment	Station AS	Antimony	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Arsenic	8E-07	- -	6E-07	- -	1E-06	Skin	5E-02	- -	3E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-03	- -	1E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	4E-04	- -	- -	4E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Chemical Total	8E-07	- -	6E-07	- -	1E-06		9E-02	- -	4E-02	1E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					1E-01
	Exposure Medium Total							1E-06					1E-01
Medium Total								1E-06					1E-01
Receptor Total								1E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	1E-02
Total Immune System HI =	7E-05
Total Kidney HI =	4E-02
Total Blood HI =	6E-03
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.63.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-03	5E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	7E-03	7E-03
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						N/A					1E-02
	Exposure Medium Total							N/A					1E-02
Medium Total								N/A					1E-02
Receptor Total								N/A					1E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: N/A

Total Hazard Across All Media: 1E-02

Total Skin HI =	N/A
Total Nervous System HI =	7E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.63.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	8E-04	8E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	N/A	- -	N/A		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Receptor Total								N/A					2E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: N/A

Total Hazard Across All Media: 2E-03

Total Skin HI =	N/A
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	8E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.64.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	5E-05	5E-05
			Tetrachloroethene	--	- -	9E-07	- -	9E-07	Liver	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	9E-04	9E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	9E-07	- -	9E-07		- -	- -	6E-03	6E-03
			Radionuclide Total										
		Exposure Point Total						9E-07					6E-03
	Exposure Medium Total							9E-07					6E-03
Medium Total								9E-07					6E-03
Sediment	Sediment	Station 05											
			Benzo(a)anthracene	3E-07	- -	2E-07	- -	5E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-06	- -	3E-06	- -	6E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	4E-07	- -	3E-07	- -	7E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	2E-04	- -	1E-04	3E-04
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	3E-06	- -	1E-06	- -	5E-06	Skin	6E-02	- -	2E-02	8E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	9E-04	- -	- -	9E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	5E-03	7E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-04	- -	- -	8E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-02	- -	- -	3E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	7E-06	- -	5E-06	- -	1E-05		2E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Receptor Total								1E-05					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 2E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 1E-05

Total Skin HI =	8E-02
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	9E-04
Total Cardiovascular HI =	9E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.64.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	1E-05	1E-05
			Tetrachloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-04	2E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	6E-08	- -	6E-08		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						6E-08					1E-03
	Exposure Medium Total							6E-08					1E-03
Medium Total								6E-08					1E-03
Sediment	Sediment	Station 05											
			Benzo(a)anthracene	3E-09	- -	5E-09	- -	8E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	2E-08	- -	4E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-10	- -	3E-10	- -	5E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	8E-06	- -	1E-05	2E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-04	- -	- -	6E-04
			Arsenic	6E-08	- -	4E-08	- -	1E-07	Skin	3E-03	- -	2E-03	6E-03
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-05	- -	2E-04	3E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-06	- -	- -	5E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-04	- -	- -	2E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-04	- -	- -	2E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-03	- -	- -	4E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-04	- -	- -	1E-04
			Chemical Total	9E-08	- -	9E-08	- -	2E-07		1E-02	- -	2E-03	1E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					1E-02
	Exposure Medium Total							2E-07					1E-02
Medium Total								2E-07					1E-02
Receptor Total								2E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 2E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	6E-03
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	5E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	1E-04
Total Liver HI =	2E-04
Total Gastrointestinal System HI =	2E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.65.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Receptor Total								7E-08					9E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-08

Total Hazard Across All Media: 9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.65.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Receptor Total								3E-09					9E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-09

Total Hazard Across All Media: 9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.66.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Sediment	Sediment	Station 03	Benzo(a)anthracene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	8E-09	- -	7E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	- -	1E-07	- -	3E-07	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-08	- -	6E-08	- -	1E-07	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	7E-05	- -	5E-05	1E-04
			Aroclor 1260	4E-08	- -	3E-08	- -	7E-08	Immune System	8E-03	- -	6E-03	1E-02
			Antimony	N/A	- -	- -	- -	N/A	Blood	6E-03	- -	- -	6E-03
			Arsenic	1E-05	- -	4E-06	- -	2E-05	Skin	2E-01	- -	7E-02	3E-01
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	2E-03	- -	- -	2E-03
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	2E-02	2E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-03	- -	- -	8E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Chemical Total	1E-05	- -	6E-06	- -	2E-05		3E-01	- -	9E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					4E-01
	Exposure Medium Total							2E-05					4E-01
Medium Total								2E-05					4E-01
Receptor Total								2E-05					4E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-05

Total Hazard Across All Media: 4E-01

Total Skin HI =	3E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	1E-02
Total Kidney HI =	1E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.66.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Sediment	Sediment	Station 03											
			Benzo(a)anthracene	4E-09	- -	6E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-08	- -	5E-08	- -	8E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	4E-09	- -	7E-09	- -	1E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	2E-10	- -	4E-10	- -	6E-10	N/A	N/A	- -	N/A	N/A
			Dibenz(a,h)anthracene	7E-09	- -	1E-08	- -	2E-08	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	- -	4E-09	- -	6E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	8E-06	1E-05
			Aroclor 1260	5E-10	- -	8E-10	- -	1E-09	Immune System	6E-04	- -	9E-04	2E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	2E-07	- -	2E-07	- -	4E-07	Skin	1E-02	- -	9E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	1E-04	- -	- -	1E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-04	- -	2E-03	2E-03
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-05	- -	- -	1E-05
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-04	- -	- -	5E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-04	- -	- -	7E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-04	- -	- -	6E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-04	- -	- -	4E-04
			Chemical Total	3E-07	- -	3E-07	- -	5E-07		2E-02	- -	1E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					3E-02
	Exposure Medium Total							5E-07					3E-02
Medium Total								5E-07					3E-02
Receptor Total								5E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-07

Total Hazard Across All Media: 4E-02

Total Skin HI =	2E-02
Total Nervous System HI =	2E-03
Total Immune System HI =	2E-03
Total Kidney HI =	8E-03
Total Blood HI =	9E-04
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.67.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	4E-03	4E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					9E-03
	Exposure Medium Total							7E-08					9E-03
Medium Total								7E-08					9E-03
Receptor Total								7E-08					9E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-08

Total Hazard Across All Media: 9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.67.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	8E-05	8E-05
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-04	3E-04
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Receptor Total								3E-09					9E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-09

Total Hazard Across All Media: 9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.68.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	3E-07	- -	6E-08	- -	3E-07	Skin	4E-03	- -	5E-04	4E-03
			Chromium VI	N/A	- -	N/A	- -	N/A	Gastrointestinal System	2E-04	- -	2E-03	2E-03
			Lead										
			Manganese	N/A	- -	N/A	- -	N/A	Nervous System	4E-04	- -	1E-03	2E-03
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	5E-05	- -	9E-05	1E-04
			Chemical Total	3E-07	- -	6E-08	- -	3E-07		4E-03	- -	4E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						3E-07					8E-03
	Exposure Medium Total							3E-07					8E-03
Medium Total								3E-07					8E-03
Sediment	Sediment	Station 01											
			Benzo(a)anthracene	3E-08	- -	3E-08	- -	6E-08	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	3E-07	- -	2E-07	- -	5E-07	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	2E-08	- -	2E-08	- -	4E-08	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	3E-09	- -	2E-09	- -	5E-09	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-08	- -	1E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	3E-05	- -	2E-05	6E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Arsenic	8E-07	- -	3E-07	- -	1E-06	Skin	1E-02	- -	5E-03	2E-02
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	3E-04	- -	- -	3E-04
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-04	- -	5E-04	8E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	9E-06	- -	- -	9E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-04	- -	- -	8E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	5E-04	- -	- -	5E-04
			Thallium	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-04	- -	- -	7E-04
			Chemical Total	1E-06	- -	6E-07	- -	2E-06		5E-02	- -	5E-03	5E-02
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-02
	Exposure Medium Total							2E-06					5E-02
Medium Total								2E-06					5E-02
Receptor Total								2E-06					6E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 6E-02

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	1E-04
Total Kidney HI =	2E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.68.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	5E-09	- -	1E-09	- -	7E-09	Skin	2E-04	- -	3E-05	3E-04
			Chromium VI	N/A	- -	N/A	- -	N/A	Gastrointestinal System	1E-05	- -	1E-04	1E-04
			Lead										
			Manganese	N/A	- -	N/A	- -	N/A	Nervous System	2E-05	- -	8E-05	1E-04
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	3E-06	- -	6E-06	9E-06
			Chemical Total	5E-09	- -	1E-09	- -	7E-09		3E-04	- -	2E-04	5E-04
			Radionuclide Total										
		Exposure Point Total						7E-09					5E-04
	Exposure Medium Total							7E-09					5E-04
Medium Total								7E-09					5E-04
Sediment	Sediment	Station 01	Benzo(a)anthracene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Benzo(a)pyrene	1E-08	- -	2E-08	- -	3E-08	N/A	N/A	- -	N/A	N/A
			Benzo(b)fluoranthene	1E-09	- -	2E-09	- -	3E-09	N/A	N/A	- -	N/A	N/A
			Benzo(k)fluoranthene	1E-10	- -	2E-10	- -	3E-10	N/A	N/A	- -	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-10	- -	1E-09	- -	2E-09	N/A	N/A	- -	N/A	N/A
			Phenanthrene	N/A	- -	N/A	- -	N/A	General Toxicity	6E-06	- -	8E-06	1E-05
			Antimony	N/A	- -	- -	- -	N/A	Blood	5E-04	- -	- -	5E-04
			Arsenic	4E-08	- -	3E-08	- -	8E-08	Skin	2E-03	- -	2E-03	4E-03
			Barium	N/A	- -	- -	- -	N/A	Cardiovascular	4E-05	- -	- -	4E-05
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-05	- -	2E-04	2E-04
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-06	- -	- -	1E-06
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-05	- -	- -	9E-05
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-04	- -	- -	3E-04
			Nickel	N/A	- -	- -	- -	N/A	General Toxicity	8E-05	- -	- -	8E-05
			Thallium	N/A	- -	- -	- -	N/A	Blood	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-03	- -	- -	2E-03
			Zinc	N/A	- -	- -	- -	N/A	Blood	8E-05	- -	- -	8E-05
			Chemical Total	6E-08	- -	6E-08	- -	1E-07		7E-03	- -	2E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					9E-03
	Exposure Medium Total							1E-07					9E-03
Medium Total								1E-07					9E-03
Receptor Total								1E-07					1E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-07

Total Hazard Across All Media: 1E-02

Total Skin HI =	4E-03
Total Nervous System HI =	4E-04
Total Immune System HI =	9E-06
Total Kidney HI =	3E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	9E-05
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-04
Total Cardiovascular HI =	4E-05
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.69.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 3											
			4,4'-DDD	7E-08	- -	- -	- -	7E-08	Immune System	4E-04	- -	- -	4E-04
			4,4'-DDE	2E-07	- -	- -	- -	2E-07	Developmental	6E-03	- -	- -	6E-03
			4,4'-DDT	4E-08	- -	- -	- -	4E-08	Liver	6E-04	- -	- -	6E-04
			Aldrin	2E-07	- -	- -	- -	2E-07	Liver	1E-03	- -	- -	1E-03
			alpha-Chlordane	8E-08	- -	- -	- -	8E-08	Liver	1E-03	- -	- -	1E-03
			Aroclor-1254	2E-06	- -	- -	- -	2E-06	Immune System	1E-01	- -	- -	1E-01
			Aroclor-1260	5E-06	- -	- -	- -	5E-06	Immune System	3E-01	- -	- -	3E-01
			delta-BHC	N/A	- -	- -	- -	N/A	Liver/Kidney	2E-04	- -	- -	2E-04
			Dieldrin	1E-06	- -	- -	- -	1E-06	Liver	5E-03	- -	- -	5E-03
			Heptachlor epoxide	3E-07	- -	- -	- -	3E-07	Liver	7E-03	- -	- -	7E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-01	- -	- -	4E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	9E-06	- -	- -	- -	9E-06		9E-01	- -	- -	9E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					9E-01
	Exposure Medium Total							9E-06					9E-01
Medium Total								9E-06					9E-01
Receptor Total								9E-06					9E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 9E-01

Total Skin HI =	N/A
Total Nervous System HI =	4E-01
Total Immune System HI =	4E-01
Total Kidney HI =	2E-04
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	6E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.69.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 3											
			4,4'-DDD	8E-09	- -	- -	- -	8E-09	Immune System	1E-04	- -	- -	1E-04
			4,4'-DDE	3E-08	- -	- -	- -	3E-08	Developmental	2E-03	- -	- -	2E-03
			4,4'-DDT	5E-09	- -	- -	- -	5E-09	Liver	2E-04	- -	- -	2E-04
			Aldrin	3E-08	- -	- -	- -	3E-08	Liver	4E-04	- -	- -	4E-04
			alpha-Chlordane	1E-08	- -	- -	- -	1E-08	Liver	5E-04	- -	- -	5E-04
			Aroclor-1254	1E-07	- -	- -	- -	1E-07	Immune System	4E-02	- -	- -	4E-02
			Aroclor-1260	3E-07	- -	- -	- -	3E-07	Immune System	1E-01	- -	- -	1E-01
			delta-BHC	N/A	- -	- -	- -	N/A	Liver/Kidney	7E-05	- -	- -	7E-05
			Dieldrin	2E-07	- -	- -	- -	2E-07	Liver	2E-03	- -	- -	2E-03
			Heptachlor epoxide	4E-08	- -	- -	- -	4E-08	Liver	3E-03	- -	- -	3E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	7E-07	- -	- -	- -	7E-07		3E-01	- -	- -	3E-01
			Radionuclide Total										
		Exposure Point Total						7E-07					3E-01
	Exposure Medium Total							7E-07					3E-01
Medium Total								7E-07					3E-01
Receptor Total								7E-07					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-07

Total Hazard Across All Media: 3E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	2E-01
Total Kidney HI =	7E-05
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.70.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reaches 4 and 5											
			4,4'-DDD	2E-07	- -	- -	- -	2E-07	Immune System	8E-04	- -	- -	8E-04
			4,4'-DDE	1E-06	- -	- -	- -	1E-06	Developmental	3E-02	- -	- -	3E-02
			4,4'-DDT	1E-07	- -	- -	- -	1E-07	Liver	2E-03	- -	- -	2E-03
			Aldrin	4E-07	- -	- -	- -	4E-07	Liver	2E-03	- -	- -	2E-03
			alpha-Chlordane	4E-08	- -	- -	- -	4E-08	Liver	5E-04	- -	- -	5E-04
			Aroclor-1254	7E-06	- -	- -	- -	7E-06	Immune System	4E-01	- -	- -	4E-01
			Aroclor-1260	2E-05	- -	- -	- -	2E-05	Immune System	1E+00	- -	- -	1E+00
			Dieldrin	1E-06	- -	- -	- -	1E-06	Liver	3E-03	- -	- -	3E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-01	- -	- -	3E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	3E-05	- -	- -	- -	3E-05		2E+00	- -	- -	2E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					2E+00
	Exposure Medium Total							3E-05					2E+00
Medium Total								3E-05					2E+00
Receptor Total								3E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	N/A
Total Nervous System HI =	3E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	2E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	3E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.70.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reaches 4 and 5											
			4,4'-DDD	2E-08	- -	- -	- -	2E-08	Immune System	3E-04	- -	- -	3E-04
			4,4'-DDE	1E-07	- -	- -	- -	1E-07	Developmental	1E-02	- -	- -	1E-02
			4,4'-DDT	1E-08	- -	- -	- -	1E-08	Liver	7E-04	- -	- -	7E-04
			Aldrin	4E-08	- -	- -	- -	4E-08	Liver	7E-04	- -	- -	7E-04
			alpha-Chlordane	4E-09	- -	- -	- -	4E-09	Liver	2E-04	- -	- -	2E-04
			Aroclor-1254	4E-07	- -	- -	- -	4E-07	Immune System	2E-01	- -	- -	2E-01
			Aroclor-1260	9E-07	- -	- -	- -	9E-07	Immune System	4E-01	- -	- -	4E-01
			Dieldrin	1E-07	- -	- -	- -	1E-07	Liver	1E-03	- -	- -	1E-03
			Antimony	N/A	- -	- -	- -	N/A	Blood	8E-03	- -	- -	8E-03
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	2E-06	- -	- -	- -	2E-06		7E-01	- -	- -	7E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					7E-01
	Exposure Medium Total							2E-06					7E-01
Medium Total								2E-06					7E-01
Receptor Total								2E-06					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 7E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	6E-01
Total Kidney HI =	N/A
Total Blood HI =	8E-03
Total General Toxicity HI =	N/A
Total Liver HI =	8E-03
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	1E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.71.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 6											
			4,4'-DDD	2E-07	- -	- -	- -	2E-07	Immune System	1E-03	- -	- -	1E-03
			4,4'-DDE	8E-07	- -	- -	- -	8E-07	Developmental	2E-02	- -	- -	2E-02
			4,4'-DDT	7E-08	- -	- -	- -	7E-08	Liver	1E-03	- -	- -	1E-03
			Aldrin	4E-07	- -	- -	- -	4E-07	Liver	2E-03	- -	- -	2E-03
			alpha-Chlordane	1E-07	- -	- -	- -	1E-07	Liver	2E-03	- -	- -	2E-03
			Aroclor-1248	6E-07	- -	- -	- -	6E-07	Immune System	4E-02	- -	- -	4E-02
			Aroclor-1254	1E-05	- -	- -	- -	1E-05	Immune System	7E-01	- -	- -	7E-01
			Aroclor-1260	6E-06	- -	- -	- -	6E-06	Immune System	4E-01	- -	- -	4E-01
			Dieldrin	2E-06	- -	- -	- -	2E-06	Liver	5E-03	- -	- -	5E-03
			Heptachlor epoxide	2E-07	- -	- -	- -	2E-07	Liver	4E-03	- -	- -	4E-03
			Arsenic	1E-05	- -	- -	- -	1E-05	Skin	5E-02	- -	- -	5E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Selenium	N/A	- -	- -	- -	N/A	Liver	1E-02	- -	- -	1E-02
			Chemical Total	3E-05	- -	- -	- -	3E-05		1E+00	- -	- -	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 1E+00

Total Skin HI =	5E-02
Total Nervous System HI =	2E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-02

US EPA ARCHIVE DOCUMENT

TABLE 3-9.71.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Fish Fillet Tissue	Reach 6											
			4,4'-DDD	2E-08	- -	- -	- -	2E-08	Immune System	4E-04	- -	- -	4E-04
			4,4'-DDE	9E-08	- -	- -	- -	9E-08	Developmental	8E-03	- -	- -	8E-03
			4,4'-DDT	8E-09	- -	- -	- -	8E-09	Liver	4E-04	- -	- -	4E-04
			Aldrin	4E-08	- -	- -	- -	4E-08	Liver	7E-04	- -	- -	7E-04
			alpha-Chlordane	1E-08	- -	- -	- -	1E-08	Liver	7E-04	- -	- -	7E-04
			Aroclor-1248	4E-08	- -	- -	- -	4E-08	Immune System	2E-02	- -	- -	2E-02
			Aroclor-1254	6E-07	- -	- -	- -	6E-07	Immune System	3E-01	- -	- -	3E-01
			Aroclor-1260	4E-07	- -	- -	- -	4E-07	Immune System	2E-01	- -	- -	2E-01
			Dieldrin	2E-07	- -	- -	- -	2E-07	Liver	2E-03	- -	- -	2E-03
			Heptachlor epoxide	2E-08	- -	- -	- -	2E-08	Liver	2E-03	- -	- -	2E-03
			Arsenic	1E-06	- -	- -	- -	1E-06	Skin	2E-02	- -	- -	2E-02
			Lead										
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Selenium	N/A	- -	- -	- -	N/A	Liver	5E-03	- -	- -	5E-03
			Chemical Total	2E-06	- -	- -	- -	2E-06		5E-01	- -	- -	5E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-01
	Exposure Medium Total							2E-06					5E-01
Medium Total								2E-06					5E-01
Receptor Total								2E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	2E-02
Total Nervous System HI =	6E-02
Total Immune System HI =	4E-01
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	8E-03

US EPA ARCHIVE DOCUMENT

TABLE 3-9.72.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult: Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Non-Carcinogenic Hazard Quotient Young Child: Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	AJRW (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	5E-05	5E-05
			Tetrachloroethene	--	- -	9E-07	- -	9E-07	Liver	- -	- -	7E-04	7E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	9E-04	9E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Chemical Total	--	- -	9E-07	- -	9E-07		- -	- -	6E-03	6E-03
			Radionuclide Total										
		Exposure Point Total						9E-07					6E-03
	Exposure Medium Total							9E-07					6E-03
Medium Total								9E-07					6E-03
Sediment	Sediment	AJRW	Arsenic	3E-06	- -	9E-07	- -	3E-06	Skin	5E-02	- -	2E-02	6E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Chemical Total	3E-06	- -	9E-07	- -	3E-06		6E-02	- -	2E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						3E-06					8E-02
	Exposure Medium Total							3E-06					8E-02
Medium Total								3E-06					8E-02
Soil	Surface Soil	AJRW	Arsenic	2E-05	- -	3E-06	- -	2E-05	Skin	3E-01	- -	5E-02	4E-01
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	5E-05	- -	- -	5E-05
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	9E-03	- -	- -	9E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Chemical Total	2E-05	- -	3E-06	- -	2E-05		4E-01	- -	5E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					5E-01
	Exposure Medium Total							2E-05					5E-01
Medium Total								2E-05					5E-01
Receptor Total								3E-05					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 5E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 2E-05

Total Skin HI =	4E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	7E-02
Total Blood HI =	N/A
Total General Toxicity HI =	5E-05
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.72.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	AJRW (Reach 5)	Chloroform	--	- -	N/A	- -	N/A	Liver	- -	- -	1E-05	1E-05
			Tetrachloroethene	--	- -	6E-08	- -	6E-08	Liver	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-04	2E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	6E-08	- -	6E-08		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						6E-08					1E-03
	Exposure Medium Total							6E-08					1E-03
Medium Total								6E-08					1E-03
Sediment	Sediment	AJRW	Arsenic	1E-07	- -	1E-07	- -	2E-07	Skin	8E-03	- -	5E-03	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-04	- -	- -	8E-04
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Chemical Total	1E-07	- -	1E-07	- -	2E-07		1E-02	- -	5E-03	2E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					2E-02
	Exposure Medium Total							2E-07					2E-02
Medium Total								2E-07					2E-02
Soil	Surface Soil	AJRW	Arsenic	9E-07	- -	4E-07	- -	1E-06	Skin	5E-02	- -	2E-02	7E-02
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	8E-06	- -	- -	8E-06
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-03	- -	- -	1E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-03	- -	- -	2E-03
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Chemical Total	9E-07	- -	4E-07	- -	1E-06		7E-02	- -	2E-02	9E-02
			Radionuclide Total										
		Exposure Point Total						1E-06					9E-02
	Exposure Medium Total							1E-06					9E-02
Medium Total								1E-06					9E-02
Receptor Total								2E-06					1E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-06

Using the MADEP slope factor for PCE, the risk for this receptor would change to: 2E-06

Total Hazard Across All Media: 1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	5E-03
Total Immune System HI =	N/A
Total Kidney HI =	1E-02
Total Blood HI =	N/A
Total General Toxicity HI =	8E-06
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.73.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Receptor Total								1E-07					8E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-07

Total Hazard Across All Media: 8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	4E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.73.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Arsenic	--	- -	2E-08	- -	2E-08	Skin	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	2E-08	- -	2E-08		- -	- -	4E-03	4E-03
			Radionuclide Total										
		Exposure Point Total						2E-08					4E-03
	Exposure Medium Total							2E-08					4E-03
Medium Total								2E-08					4E-03
Receptor Total								2E-08					4E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-08

Total Hazard Across All Media: 4E-03

Total Skin HI =	5E-04
Total Nervous System HI =	2E-03
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.74.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 52 days	Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	7E-03	7E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	6E-03	6E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	8E-05	8E-05
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					2E-02
	Exposure Medium Total							2E-07					2E-02
Medium Total								2E-07					2E-02
Receptor Total								2E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	6E-03
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.75.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 78 days	Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	9E-03	9E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	3E-07	- -	3E-07		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						3E-07					2E-02
	Exposure Medium Total							3E-07					2E-02
Medium Total								3E-07					2E-02
Receptor Total								3E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	3E-03
Total Nervous System HI =	9E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.75.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 78 days	Arsenic	--	- -	5E-08	- -	5E-08	Skin	- -	- -	2E-03	2E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-03	5E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	6E-05	6E-05
			Chemical Total	--	- -	5E-08	- -	5E-08		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						5E-08					1E-02
	Exposure Medium Total							5E-08					1E-02
Medium Total								5E-08					1E-02
Receptor Total								5E-08					1E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 5E-08

Total Hazard Across All Media: 1E-02

Total Skin HI =	2E-03
Total Nervous System HI =	5E-03
Total Immune System HI =	6E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.76.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 104 days	Arsenic	--	- -	4E-07	- -	4E-07	Skin	- -	- -	4E-03	4E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	4E-07	- -	4E-07		- -	- -	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					3E-02
	Exposure Medium Total							4E-07					3E-02
Medium Total								4E-07					3E-02
Receptor Total								4E-07					3E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-07

Total Hazard Across All Media: 3E-02

Total Skin HI =	4E-03
Total Nervous System HI =	1E-02
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.77.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-06 - 26 days	Arsenic	--	- -	7E-08	- -	7E-08	Skin	- -	- -	6E-04	6E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	2E-03	2E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Chemical Total	--	- -	7E-08	- -	7E-08		- -	- -	6E-03	6E-03
			Radionuclide Total										
		Exposure Point Total						7E-08					6E-03
	Exposure Medium Total							7E-08					6E-03
Medium Total								7E-08					6E-03
Receptor Total								7E-08					6E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-08

Total Hazard Across All Media: 6E-03

Total Skin HI =	6E-04
Total Nervous System HI =	3E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.77.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-06 - 26 days	Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	1E-08	- -	1E-08		- -	- -	3E-03	3E-03
			Radionuclide Total										
		Exposure Point Total						1E-08					3E-03
	Exposure Medium Total							1E-08					3E-03
Medium Total								1E-08					3E-03
Receptor Total								1E-08					3E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-08

Total Hazard Across All Media: 3E-03

Total Skin HI =	3E-04
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.78.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW05 - 78 days	Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	7E-03	7E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-03	8E-03
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					2E-02
	Exposure Medium Total							2E-07					2E-02
Medium Total								2E-07					2E-02
Receptor Total								2E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	8E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.78.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW05 - 78 days	Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					8E-03
	Exposure Medium Total							3E-08					8E-03
Medium Total								3E-08					8E-03
Receptor Total								3E-08					8E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-08

Total Hazard Across All Media: 8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.79.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-06 - 104 days	Arsenic	--	- -	3E-07	- -	3E-07	Skin	- -	- -	3E-03	3E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	9E-03	9E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-02	1E-02
			Chemical Total	--	- -	3E-07	- -	3E-07		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						3E-07					2E-02
	Exposure Medium Total							3E-07					2E-02
Medium Total								3E-07					2E-02
Receptor Total								3E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	3E-03
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.80.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-07 - 26 days	Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	3E-04	3E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					2E-03
	Exposure Medium Total							3E-08					2E-03
Medium Total								3E-08					2E-03
Receptor Total								3E-08					2E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-08

Total Hazard Across All Media: 2E-03

Total Skin HI =	3E-04
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.80.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-07 - 26 days	Arsenic	--	- -	5E-09	- -	5E-09	Skin	- -	- -	1E-04	1E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Chemical Total	--	- -	5E-09	- -	5E-09		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Receptor Total								5E-09					1E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-09

Total Hazard Across All Media: 1E-03

Total Skin HI =	1E-04
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.81.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-07 - 78 days	Arsenic	--	- -	9E-08	- -	9E-08	Skin	- -	- -	9E-04	9E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	6E-03	6E-03
			Chemical Total	--	- -	9E-08	- -	9E-08		- -	- -	7E-03	7E-03
			Radionuclide Total										
		Exposure Point Total						9E-08					7E-03
	Exposure Medium Total							9E-08					7E-03
Medium Total								9E-08					7E-03
Receptor Total								9E-08					7E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 9E-08

Total Hazard Across All Media: 7E-03

Total Skin HI =	9E-04
Total Nervous System HI =	6E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.82.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-08 - 78 days	Arsenic	--	- -	6E-08	- -	6E-08	Skin	- -	- -	6E-04	6E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	4E-03	4E-03
			Chemical Total	--	- -	6E-08	- -	6E-08		- -	- -	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						6E-08					5E-03
	Exposure Medium Total							6E-08					5E-03
Medium Total								6E-08					5E-03
Receptor Total								6E-08					5E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 6E-08

Total Hazard Across All Media: 5E-03

Total Skin HI =	6E-04
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.82.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-08 - 26 days	Arsenic	--	- -	3E-09	- -	3E-09	Skin	- -	- -	1E-04	1E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	7E-04	7E-04
			Chemical Total	--	- -	3E-09	- -	3E-09		- -	- -	8E-04	8E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					8E-04
	Exposure Medium Total							3E-09					8E-04
Medium Total								3E-09					8E-04
Receptor Total								3E-09					8E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-09

Total Hazard Across All Media: 8E-04

Total Skin HI =	1E-04
Total Nervous System HI =	7E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.83.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-09 - 78 days	Arsenic	--	- -	4E-08	- -	4E-08	Skin	- -	- -	4E-04	4E-04
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Chemical Total	--	- -	4E-08	- -	4E-08		- -	- -	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						4E-08					1E-03
	Exposure Medium Total							4E-08					1E-03
Medium Total								4E-08					1E-03
Receptor Total								4E-08					1E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-08

Total Hazard Across All Media: 1E-03

Total Skin HI =	4E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.83.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-09 - 26 days	Arsenic	--	- -	2E-09	- -	2E-09	Skin	- -	- -	6E-05	6E-05
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	2E-09	- -	2E-09		- -	- -	2E-04	2E-04
			Radionuclide Total										
		Exposure Point Total						2E-09					2E-04
	Exposure Medium Total							2E-09					2E-04
Medium Total								2E-09					2E-04
Receptor Total								2E-09					2E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-09

Total Hazard Across All Media: 2E-04

Total Skin HI =	6E-05
Total Nervous System HI =	1E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.84.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-10 - 39 days	Arsenic	2E-07	- -	4E-08	- -	2E-07	Skin	2E-03	- -	3E-04	2E-03
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	3E-04	- -	5E-04	7E-04
			Chemical Total	2E-07	- -	4E-08	- -	2E-07		2E-03	- -	8E-04	3E-03
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-03
	Exposure Medium Total							2E-07					3E-03
Medium Total								2E-07					3E-03
Receptor Total								2E-07					3E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 3E-03

Total Skin HI =	2E-03
Total Nervous System HI =	N/A
Total Immune System HI =	7E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

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TABLE 3-9.84.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-10 - 5 days	Arsenic	3E-09	- -	7E-10	- -	4E-09	Skin	1E-04	- -	2E-05	2E-04
			Mercury	N/A	- -	N/A	- -	N/A	Immune System	2E-05	- -	3E-05	5E-05
			Chemical Total	3E-09	- -	7E-10	- -	4E-09		2E-04	- -	5E-05	2E-04
			Radionuclide Total										
		Exposure Point Total						4E-09					2E-04
	Exposure Medium Total							4E-09					2E-04
Medium Total								4E-09					2E-04
Receptor Total								4E-09					2E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 4E-09

Total Hazard Across All Media: 2E-04

Total Skin HI =	2E-04
Total Nervous System HI =	N/A
Total Immune System HI =	5E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.85.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-05	Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	1E-03	1E-03
			Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	6E-03	6E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	9E-05	9E-05
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total						1E-07					1E-02
	Exposure Medium Total							1E-07					1E-02
Medium Total								1E-07					1E-02
Receptor Total								1E-07					1E-02

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-07

Total Hazard Across All Media: 1E-02

Total Skin HI =	1E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	9E-05
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	6E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.85.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-05											
			Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	2E-04	2E-04
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	3E-04	3E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	1E-08	- -	1E-08		- -	- -	3E-03	3E-03
			Radionuclide Total										
		Exposure Point Total						1E-08					3E-03
	Exposure Medium Total							1E-08					3E-03
Medium Total								1E-08					3E-03
Receptor Total								1E-08					3E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-08

Total Hazard Across All Media: 3E-03

Total Skin HI =	3E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	2E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.86.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-06	Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	1E-03	1E-03
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-02	1E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	3E-03	3E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					2E-02
	Exposure Medium Total							2E-07					2E-02
Medium Total								2E-07					2E-02
Receptor Total								2E-07					2E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.86.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-06											
			Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	3E-04	3E-04
			Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	4E-04	4E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-03	3E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	8E-04	8E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	1E-08	- -	1E-08		- -	- -	4E-03	4E-03
			Radionuclide Total										
		Exposure Point Total						1E-08					4E-03
	Exposure Medium Total							1E-08					4E-03
Medium Total								1E-08					4E-03
Receptor Total								1E-08					4E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-08

Total Hazard Across All Media: 4E-03

Total Skin HI =	4E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	3E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.87.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-07	Arsenic	--	- -	1E-07	- -	1E-07	Skin	- -	- -	1E-03	1E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	5E-03	5E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	2E-03	2E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	8E-05	8E-05
			Chemical Total	--	- -	1E-07	- -	1E-07		- -	- -	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						1E-07					8E-03
	Exposure Medium Total							1E-07					8E-03
Medium Total								1E-07					8E-03
Receptor Total								1E-07					8E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-07

Total Hazard Across All Media: 8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	2E-03
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.87.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-07											
			Arsenic	--	- -	8E-09	- -	8E-09	Skin	- -	- -	2E-04	2E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	1E-03	1E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-04	5E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	8E-09	- -	8E-09		- -	- -	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						8E-09					2E-03
	Exposure Medium Total							8E-09					2E-03
Medium Total								8E-09					2E-03
Receptor Total								8E-09					2E-03

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 8E-09

Total Hazard Across All Media: 2E-03

Total Skin HI =	2E-04
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.88.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-08											
			Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	5E-04	5E-04
			Arsenic	--	- -	2E-07	- -	2E-07	Skin	- -	- -	2E-03	2E-03
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	3E-02	3E-02
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	5E-03	5E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-04	2E-04
			Thallium	--	- -	N/A	- -	N/A	Blood	- -	- -	5E-04	5E-04
			Chemical Total	--	- -	2E-07	- -	2E-07		- -	- -	4E-02	4E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					4E-02
	Exposure Medium Total							2E-07					4E-02
Medium Total								2E-07					4E-02
Receptor Total								2E-07					4E-02

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-07

Total Hazard Across All Media: 4E-02

Total Skin HI =	2E-03
Total Nervous System HI =	5E-03
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.88.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-08											
			Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	1E-04	1E-04
			Arsenic	--	- -	2E-08	- -	2E-08	Skin	- -	- -	5E-04	5E-04
			Chromium VI	--	- -	N/A	- -	N/A	Gastrointestinal System	- -	- -	7E-03	7E-03
			Lead										
			Manganese	--	- -	N/A	- -	N/A	Nervous System	- -	- -	1E-03	1E-03
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	4E-05	4E-05
			Thallium	--	- -	N/A	- -	N/A	Blood	- -	- -	1E-04	1E-04
			Chemical Total	--	- -	2E-08	- -	2E-08		- -	- -	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total						2E-08					9E-03
	Exposure Medium Total							2E-08					9E-03
Medium Total								2E-08					9E-03
Receptor Total								2E-08					9E-03

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 2E-08

Total Hazard Across All Media: 9E-03

Total Skin HI =	5E-04
Total Nervous System HI =	1E-03
Total Immune System HI =	4E-05
Total Kidney HI =	N/A
Total Blood HI =	3E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.89.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-09	Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	6E-04	6E-04
			Arsenic	--	- -	3E-08	- -	3E-08	Skin	- -	- -	3E-04	3E-04
			Chemical Total	--	- -	3E-08	- -	3E-08		- -	- -	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-08					9E-04
	Exposure Medium Total							3E-08					9E-04
Medium Total								3E-08					9E-04
Receptor Total								3E-08					9E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-08

Total Hazard Across All Media: 9E-04

Total Skin HI =	3E-04
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	6E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.89.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-09	Antimony	--	- -	N/A	- -	N/A	Blood	- -	- -	2E-04	2E-04
			Arsenic	--	- -	2E-09	- -	2E-09	Skin	- -	- -	7E-05	7E-05
			Chemical Total	--	- -	2E-09	- -	2E-09		- -	- -	2E-04	2E-04
			Radionuclide Total										
		Exposure Point Total						2E-09					2E-04
	Exposure Medium Total							2E-09					2E-04
Medium Total								2E-09					2E-04
Receptor Total								2E-09					2E-04

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-09

Total Hazard Across All Media: 2E-04

Total Skin HI =	7E-05
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	2E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.90.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-10	Arsenic	--	- -	1E-08	- -	1E-08	Skin	- -	- -	1E-04	1E-04
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	8E-05	8E-05
			Chemical Total	--	- -	1E-08	- -	1E-08		- -	- -	2E-04	2E-04
			Radionuclide Total										
		Exposure Point Total						1E-08					2E-04
	Exposure Medium Total							1E-08					2E-04
Medium Total								1E-08					2E-04
Receptor Total								1E-08					2E-04

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-08

Total Hazard Across All Media: 2E-04

Total Skin HI =	1E-04
Total Nervous System HI =	N/A
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.90.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-10	Arsenic	--	- -	1E-09	- -	1E-09	Skin	- -	- -	4E-05	4E-05
			Mercury	--	- -	N/A	- -	N/A	Immune System	- -	- -	2E-05	2E-05
			Chemical Total	--	- -	1E-09	- -	1E-09		- -	- -	5E-05	5E-05
			Radionuclide Total										
		Exposure Point Total						1E-09					5E-05
	Exposure Medium Total							1E-09					5E-05
Medium Total								1E-09					5E-05
Receptor Total								1E-09					5E-05

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-09

Total Hazard Across All Media: 5E-05

Total Skin HI =	4E-05
Total Nervous System HI =	N/A
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.91.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC05											
			Antimony	N/A	- -	- -	- -	N/A	Blood	4E-02	- -	- -	4E-02
			Arsenic	3E-05	- -	5E-06	- -	3E-05	Skin	2E+00	- -	4E-01	2E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	4E-02	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-02	- -	- -	7E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-01	- -	- -	3E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	8E-02	- -	- -	8E-02
			Chemical Total	3E-05	- -	5E-06	- -	3E-05		3E+00	- -	4E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					3E+00
	Exposure Medium Total							3E-05					3E+00
Medium Total								3E-05					3E+00
Receptor Total								3E-05					3E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-05

Total Hazard Across All Media: 3E+00

Total Skin HI =	2E+00
Total Nervous System HI =	3E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.91.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC05											
			Antimony	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Arsenic	4E-06	- -	7E-07	- -	5E-06	Skin	6E-01	- -	1E-01	7E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Chemical Total	4E-06	- -	7E-07	- -	5E-06		8E-01	- -	1E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						5E-06					1E+00
	Exposure Medium Total							5E-06					1E+00
Medium Total								5E-06					1E+00
Receptor Total								5E-06					1E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-06

Total Hazard Across All Media: 1E+00

Total Skin HI =	7E-01
Total Nervous System HI =	2E-01
Total Immune System HI =	N/A
Total Kidney HI =	9E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.92.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC06											
			Arsenic	5E-05	- -	9E-06	- -	6E-05	Skin	4E+00	- -	7E-01	4E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	6E-02	- -	7E-02	1E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	8E-02	- -	- -	8E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	5E-05	- -	9E-06	- -	6E-05		4E+00	- -	8E-01	5E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					5E+00
	Exposure Medium Total							6E-05					5E+00
Medium Total								6E-05					5E+00
Receptor Total								6E-05					5E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 6E-05

Total Hazard Across All Media: 5E+00

Total Skin HI =	4E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	N/A
Total Kidney HI =	3E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.92.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC06											
			Arsenic	6E-06	- -	1E-06	- -	7E-06	Skin	9E-01	- -	2E-01	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	4E-02	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Chemical Total	6E-06	- -	1E-06	- -	7E-06		1E+00	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						7E-06					1E+00
	Exposure Medium Total							7E-06					1E+00
Medium Total								7E-06					1E+00
Receptor Total								7E-06					1E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 7E-06

Total Hazard Across All Media: 1E+00

Total Skin HI =	1E+00
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	9E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.93.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC07											
			Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	9E-01	- -	2E-01	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	4E-02	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-02	- -	- -	2E-02
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		1E+00	- -	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						1E-05					1E+00
	Exposure Medium Total							1E-05					1E+00
Medium Total								1E-05					1E+00
Receptor Total								1E-05					1E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 1E+00

Total Skin HI =	1E+00
Total Nervous System HI =	9E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.93.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC07											
			Arsenic	3E-06	- -	6E-07	- -	3E-06	Skin	4E-01	- -	9E-02	5E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	4E-02	- -	- -	4E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	9E-03	- -	- -	9E-03
			Chemical Total	3E-06	- -	6E-07	- -	3E-06		6E-01	- -	1E-01	7E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					7E-01
	Exposure Medium Total							3E-06					7E-01
Medium Total								3E-06					7E-01
Receptor Total								3E-06					7E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 7E-01

Total Skin HI =	5E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	9E-02
Total Blood HI =	9E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.94.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC08											
			Arsenic	4E-05	- -	7E-06	- -	4E-05	Skin	3E+00	- -	5E-01	3E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	3E-02	- -	4E-02	7E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-02	- -	- -	6E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-01	- -	- -	2E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	4E-05	- -	7E-06	- -	4E-05		3E+00	- -	6E-01	4E+00
			Radionuclide Total										
		Exposure Point Total						4E-05					4E+00
	Exposure Medium Total							4E-05					4E+00
Medium Total								4E-05					4E+00
Receptor Total								4E-05					4E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 4E-05

Total Hazard Across All Media: 4E+00

Total Skin HI =	3E+00
Total Nervous System HI =	2E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.94.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC08											
			Arsenic	3E-06	- -	5E-07	- -	3E-06	Skin	4E-01	- -	8E-02	5E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	6E-03	1E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	8E-03	- -	- -	8E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	5E-03	- -	- -	5E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	5E-03	- -	- -	5E-03
			Chemical Total	3E-06	- -	5E-07	- -	3E-06		4E-01	- -	8E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					5E-01
	Exposure Medium Total							3E-06					5E-01
Medium Total								3E-06					5E-01
Receptor Total								3E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	5E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-02
Total Blood HI =	5E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.95.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC09	Arsenic	3E-06	- -	5E-07	- -	3E-06	Skin	2E-01	- -	4E-02	2E-01
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Chemical Total	3E-06	- -	5E-07	- -	3E-06		2E-01	- -	4E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					3E-01
	Exposure Medium Total							3E-06					3E-01
Medium Total								3E-06					3E-01
Receptor Total								3E-06					3E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 3E-06

Total Hazard Across All Media: 3E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.95.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC09	Arsenic	3E-07	- -	7E-08	- -	4E-07	Skin	5E-02	- -	1E-02	6E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-03	- -	- -	4E-03
			Chemical Total	3E-07	- -	7E-08	- -	4E-07		6E-02	- -	1E-02	7E-02
			Radionuclide Total										
		Exposure Point Total						4E-07					7E-02
	Exposure Medium Total							4E-07					7E-02
Medium Total								4E-07					7E-02
Receptor Total								4E-07					7E-02

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 4E-07

Total Hazard Across All Media: 7E-02

Total Skin HI =	6E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.96.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC10	Arsenic	2E-06	- -	3E-07	- -	2E-06	Skin	1E-01	- -	3E-02	2E-01
			Chemical Total	2E-06	- -	3E-07	- -	2E-06		1E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					2E-01
	Exposure Medium Total							2E-06					2E-01
Medium Total								2E-06					2E-01
Receptor Total								2E-06					2E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 2E-06

Total Hazard Across All Media: 2E-01

Total Skin HI =	2E-01
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.96.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC10	Arsenic	4E-07	- -	8E-08	- -	5E-07	Skin	6E-02	- -	1E-02	8E-02
			Chemical Total	4E-07	- -	8E-08	- -	5E-07		6E-02	- -	1E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						5E-07					8E-02
	Exposure Medium Total							5E-07					8E-02
Medium Total								5E-07					8E-02
Receptor Total								5E-07					8E-02

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-07

Total Hazard Across All Media: 8E-02

Total Skin HI =	8E-02
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.97.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC11											
			Arsenic	3E-06	- -	6E-07	- -	4E-06	Skin	2E-01	- -	5E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	9E-03	- -	1E-02	2E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Chemical Total	3E-06	- -	6E-07	- -	4E-06		4E-01	- -	6E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					5E-01
	Exposure Medium Total							4E-06					5E-01
Medium Total								4E-06					5E-01
Receptor Total								4E-06					5E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.97.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC11											
			Arsenic	7E-07	- -	1E-07	- -	9E-07	Skin	1E-01	- -	2E-02	1E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	5E-03	9E-03
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Chemical Total	7E-07	- -	1E-07	- -	9E-07		2E-01	- -	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						9E-07					2E-01
	Exposure Medium Total							9E-07					2E-01
Medium Total								9E-07					2E-01
Receptor Total								9E-07					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 9E-07

Total Hazard Across All Media: 2E-01

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.98.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC12											
			Arsenic	4E-06	- -	7E-07	- -	4E-06	Skin	3E-01	- -	6E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-02	- -	2E-02	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Chemical Total	4E-06	- -	7E-07	- -	4E-06		5E-01	- -	8E-02	6E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					6E-01
	Exposure Medium Total							4E-06					6E-01
Medium Total								4E-06					6E-01
Receptor Total								4E-06					6E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 4E-06

Total Hazard Across All Media: 6E-01

Total Skin HI =	3E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.98.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC12											
			Arsenic	8E-07	- -	2E-07	- -	1E-06	Skin	1E-01	- -	2E-02	1E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	7E-03	- -	9E-03	2E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	8E-03	- -	- -	8E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Chemical Total	8E-07	- -	2E-07	- -	1E-06		2E-01	- -	3E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					3E-01
	Exposure Medium Total							1E-06					3E-01
Medium Total								1E-06					3E-01
Receptor Total								1E-06					3E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 3E-01

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	8E-02
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.99.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC13											
			Arsenic	3E-06	- -	7E-07	- -	4E-06	Skin	3E-01	- -	5E-02	3E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-02	- -	2E-02	4E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	7E-03	- -	- -	7E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-02	- -	- -	1E-02
			Chemical Total	3E-06	- -	7E-07	- -	4E-06		4E-01	- -	7E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					5E-01
	Exposure Medium Total							4E-06					5E-01
Medium Total								4E-06					5E-01
Receptor Total								4E-06					5E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 4E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.99.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC13											
			Arsenic	8E-07	- -	2E-07	- -	1E-06	Skin	1E-01	- -	3E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	1E-02	2E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	7E-03	- -	- -	7E-03
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-03	- -	- -	3E-03
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	5E-02	- -	- -	5E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chemical Total	8E-07	- -	2E-07	- -	1E-06		2E-01	- -	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-06					2E-01
	Exposure Medium Total							1E-06					2E-01
Medium Total								1E-06					2E-01
Receptor Total								1E-06					2E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-06

Total Hazard Across All Media: 2E-01

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	8E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.100.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station 07/DP											
			Arsenic	4E-05	- -	4E-06	- -	5E-05	Skin	8E-01	- -	7E-02	9E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-01	- -	- -	3E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	5E-02	- -	- -	5E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-01	- -	- -	2E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-01	- -	- -	3E-01
			Chemical Total	4E-05	- -	4E-06	- -	5E-05		2E+00	- -	7E-02	2E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					2E+00
	Exposure Medium Total							5E-05					2E+00
Medium Total								5E-05					2E+00
Receptor Total								5E-05					2E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	9E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	5E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.100.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station 07/DP											
			Arsenic	7E-06	- -	1E-06	- -	9E-06	Skin	4E-01	- -	7E-02	5E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	5E-04	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-01	- -	- -	1E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	6E-02	- -	- -	6E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	9E-02	- -	- -	9E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	2E-01	- -	- -	2E-01
			Chemical Total	7E-06	- -	1E-06	- -	9E-06		9E-01	- -	7E-02	1E+00
			Radionuclide Total										
		Exposure Point Total						9E-06					1E+00
	Exposure Medium Total							9E-06					1E+00
Medium Total								9E-06					1E+00
Receptor Total								9E-06					1E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 1E+00

Total Skin HI =	5E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.101.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station KF											
			Arsenic	5E-05	- -	4E-06	- -	5E-05	Skin	8E-01	- -	7E-02	9E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	8E-03	- -	9E-03	2E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	2E-01	- -	- -	2E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	2E-02	- -	- -	2E-02
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	6E-02	- -	- -	6E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	2E-01	- -	- -	2E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	7E-03	- -	- -	7E-03
			Chemical Total	5E-05	- -	4E-06	- -	5E-05		1E+00	- -	8E-02	1E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					1E+00
	Exposure Medium Total							5E-05					1E+00
Medium Total								5E-05					1E+00
Receptor Total								5E-05					1E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 1E+00

Total Skin HI =	9E-01
Total Nervous System HI =	1E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	7E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.101.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station KF											
			Arsenic	7E-06	- -	1E-06	- -	9E-06	Skin	4E-01	- -	7E-02	5E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	9E-03	1E-02
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	1E-01	- -	- -	1E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	1E-02	- -	- -	1E-02
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	8E-02	- -	- -	8E-02
			Zinc	N/A	- -	- -	- -	N/A	Blood	4E-03	- -	- -	4E-03
			Chemical Total	7E-06	- -	1E-06	- -	9E-06		7E-01	- -	8E-02	8E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					8E-01
	Exposure Medium Total							9E-06					8E-01
Medium Total								9E-06					8E-01
Receptor Total								9E-06					8E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 9E-06

Total Hazard Across All Media: 8E-01

Total Skin HI =	5E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	4E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.102.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	AJRW											
			Arsenic	7E-05	- -	6E-06	- -	7E-05	Skin	1E+00	- -	1E-01	1E+00
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	2E-04	- -	- -	2E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	3E-02	- -	- -	3E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	4E-02	- -	- -	4E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	3E-01	- -	- -	3E-01
			Chemical Total	7E-05	- -	6E-06	- -	7E-05		2E+00	- -	1E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						7E-05					2E+00
	Exposure Medium Total							7E-05					2E+00
Medium Total								7E-05					2E+00
Receptor Total								7E-05					2E+00

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 7E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	6E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-01
Total Blood HI =	N/A
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.102.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	AJRW											
			Arsenic	1E-05	- -	2E-06	- -	1E-05	Skin	6E-01	- -	1E-01	7E-01
			Chromium III	N/A	- -	- -	- -	N/A	General Toxicity	1E-04	- -	- -	1E-04
			Lead										
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Chemical Total	1E-05	- -	2E-06	- -	1E-05		8E-01	- -	1E-01	9E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					9E-01
	Exposure Medium Total							1E-05					9E-01
Medium Total								1E-05					9E-01
Receptor Total								1E-05					9E-01

- - = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 9E-01

Total Skin HI =	7E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	N/A
Total General Toxicity HI =	1E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.103.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station WS/WSS											
			Arsenic	1E-05	- -	1E-06	- -	1E-05	Skin	2E-01	- -	2E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	2E-03	- -	2E-03	4E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-02	- -	- -	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	6E-03	- -	- -	6E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	8E-02	- -	- -	8E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	1E-05	- -	1E-06	- -	1E-05		5E-01	- -	2E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					5E-01
	Exposure Medium Total							1E-05					5E-01
Medium Total								1E-05					5E-01
Receptor Total								1E-05					5E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 1E-05

Total Hazard Across All Media: 5E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	8E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.103.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station WS/WSS											
			Arsenic	7E-06	- -	3E-07	- -	8E-06	Skin	2E-01	- -	2E-02	2E-01
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	1E-03	- -	1E-03	2E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-02	- -	- -	3E-02
			Copper	N/A	- -	- -	- -	N/A	Kidney	5E-03	- -	- -	5E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	1E-02	- -	- -	1E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	6E-03	- -	- -	6E-03
			Thallium	N/A	- -	- -	- -	N/A	Blood	8E-02	- -	- -	8E-02
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	1E-03	- -	- -	1E-03
			Chemical Total	7E-06	- -	3E-07	- -	8E-06		5E-01	- -	2E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						8E-06					5E-01
	Exposure Medium Total							8E-06					5E-01
Medium Total								8E-06					5E-01
Receptor Total								8E-06					5E-01

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 8E-06

Total Hazard Across All Media: 5E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	8E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.104.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	6E-05	- -	6E-06	- -	7E-05	Skin	1E+00	- -	9E-02	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	4E-03	8E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-01	- -	- -	3E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	6E-05	- -	6E-06	- -	7E-05		2E+00	- -	1E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						7E-05					2E+00
	Exposure Medium Total							7E-05					2E+00
Medium Total								7E-05					2E+00
Receptor Total								7E-05					2E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 7E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-9.104.CT

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05											
			Arsenic	4E-05	- -	2E-06	- -	5E-05	Skin	1E+00	- -	9E-02	1E+00
			Cadmium	N/A	- -	N/A	- -	N/A	Kidney	4E-03	- -	4E-03	8E-03
			Chromium VI	N/A	- -	- -	- -	N/A	Gastrointestinal System	3E-01	- -	- -	3E-01
			Copper	N/A	- -	- -	- -	N/A	Kidney	9E-03	- -	- -	9E-03
			Manganese	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Mercury	N/A	- -	- -	- -	N/A	Nervous System	2E-02	- -	- -	2E-02
			Thallium	N/A	- -	- -	- -	N/A	Blood	1E-01	- -	- -	1E-01
			Vanadium	N/A	- -	- -	- -	N/A	Kidney	1E-01	- -	- -	1E-01
			Zinc	N/A	- -	- -	- -	N/A	Blood	3E-03	- -	- -	3E-03
			Chemical Total	4E-05	- -	2E-06	- -	5E-05		2E+00	- -	1E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						5E-05					2E+00
	Exposure Medium Total							5E-05					2E+00
Medium Total								5E-05					2E+00
Receptor Total								5E-05					2E+00

- - = Not Evaluated

N/A = Not Applicable

Total Risk Across All Media: 5E-05

Total Hazard Across All Media: 2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

US EPA ARCHIVE DOCUMENT

TABLE 3-10.1.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station WH	Arsenic						Skin	2E+00	- -	5E-01	2E+00
			Chemical Total	- -	- -	- -	- -	- -		2E+00	- -	5E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						- -					2E+00
	Exposure Medium Total							- -					2E+00
Medium Total								- -					2E+00
Receptor Total								- -					2E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 2E+00

Total Skin HI = 2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.2.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station CB-03	Arsenic						Skin	2E+00	- -	6E-01	3E+00
			Chemical Total	- -	- -	- -	- -	- -		2E+00	- -	6E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						- -					3E+00
	Exposure Medium Total							- -					3E+00
Medium Total								- -					3E+00
Receptor Total								- -					3E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 3E+00

Total Skin HI = 3E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.3.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station 13/TT-27	Benzo(a)pyrene	2E-06	- -	1E-06	- -	3E-06					
			Arsenic	5E-04	- -	2E-04	- -	7E-04	Skin	9E+00	- -	3E+00	1E+01
			Chemical Total	5E-04	- -	2E-04	- -	7E-04		9E+00	- -	3E+00	1E+01
			Radionuclide Total										
		Exposure Point Total						7E-04					1E+01
	Exposure Medium Total							7E-04					1E+01
Medium Total								7E-04					1E+01
Receptor Total								7E-04					1E+01

Total Risk Across All Media: 7E-04

Total Hazard Across All Media: 1E+01

Total Skin HI = 1E+01

US EPA ARCHIVE DOCUMENT

TABLE 3-10.3.CT

RISK SUMMARY

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station 13/TT-27	Arsenic						Skin	1E+00	- -	1E+00	2E+00
			Chemical Total	- -	- -	- -	- -	- -		1E+00	- -	1E+00	2E+00
			Radionuclide Total										
		Exposure Point Total						- -					2E+00
	Exposure Medium Total							- -					2E+00
Medium Total								- -					2E+00
Receptor Total								- -					2E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 2E+00

Total Skin HI = 2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.4.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station WH	Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06					
			Arsenic	3E-04	- -	9E-05	- -	4E-04	Skin	5E+00	- -	2E+00	6E+00
			Chemical Total	3E-04	- -	1E-04	- -	4E-04		5E+00	- -	2E+00	6E+00
			Radionuclide Total										
		Exposure Point Total						4E-04					6E+00
	Exposure Medium Total							4E-04					6E+00
Medium Total								4E-04					6E+00
Receptor Total								4E-04					6E+00

Total Risk Across All Media: 4E-04

Total Hazard Across All Media: 6E+00

Total Skin HI = 6E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.5.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station NT-1	Benzo(a)pyrene	1E-06	- -	9E-07	- -	2E-06					
			Arsenic	3E-04	- -	1E-04	- -	5E-04	Skin	6E+00	- -	2E+00	8E+00
			Chemical Total	3E-04	- -	1E-04	- -	5E-04		6E+00	- -	2E+00	8E+00
			Radionuclide Total										
		Exposure Point Total						5E-04					8E+00
	Exposure Medium Total							5E-04					8E+00
Medium Total								5E-04					8E+00
Receptor Total								5E-04					8E+00

Total Risk Across All Media: 5E-04

Total Hazard Across All Media: 8E+00

Total Skin HI = 8E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.5.CT

RISK SUMMARY

CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station NT-1	Arsenic						Skin	1E+00	- -	7E-01	2E+00
			Chemical Total	- -	- -	- -	- -	- -		1E+00	- -	7E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						- -					2E+00
	Exposure Medium Total							- -					2E+00
Medium Total								- -					2E+00
Receptor Total								- -					2E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 2E+00

Total Skin HI = 2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.6.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station NT-2	Benzo(a)pyrene	1E-06	- -	1E-06	- -	2E-06					
			Arsenic	2E-04	- -	9E-05	- -	3E-04	Skin	4E+00	- -	1E+00	6E+00
			Chemical Total	2E-04	- -	9E-05	- -	3E-04		4E+00	- -	1E+00	6E+00
			Radionuclide Total										
		Exposure Point Total						3E-04					6E+00
	Exposure Medium Total							3E-04					6E+00
Medium Total								3E-04					6E+00
Receptor Total								3E-04					6E+00

Total Risk Across All Media: 3E-04

Total Hazard Across All Media: 6E+00

Total Skin HI = 6E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.7.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station NT-3	Arsenic						Skin	1E+00	- -	4E-01	2E+00
			Chemical Total	- -	- -	- -	- -	- -		1E+00	- -	4E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						- -					2E+00
	Exposure Medium Total							- -					2E+00
Medium Total								- -					2E+00
Receptor Total								- -					2E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 2E+00

Total Skin HI = 2E+00

US EPA ARCHIVE DOCUMENT

TABLE 3-10.8.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station CB-03	Arsenic						Skin	2E+00	- -	6E-01	3E+00
			Chemical Total	- -	- -	- -	- -	- -		2E+00	- -	6E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						- -					3E+00
	Exposure Medium Total							- -					3E+00
Medium Total								- -					3E+00
Receptor Total								- -					3E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 3E+00

Total Skin HI = 3E+00

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TABLE 3-10.9.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC05	Arsenic						Skin	2E+00	- -	4E-01	2E+00
			Chemical Total	- -	- -	- -	- -	- -		2E+00	- -	4E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						- -					2E+00
	Exposure Medium Total							- -					2E+00
Medium Total								- -					2E+00
Receptor Total								- -					2E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 2E+00

Total Skin HI = 2E+00

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TABLE 3-10.10.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC06	Arsenic						Skin	4E+00	- -	7E-01	4E+00
			Chemical Total	- -	- -	- -	- -	- -		4E+00	- -	7E-01	4E+00
			Radionuclide Total										
		Exposure Point Total						- -					4E+00
	Exposure Medium Total							- -					4E+00
Medium Total								- -					4E+00
Receptor Total								- -					4E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 4E+00

Total Skin HI = 4E+00

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TABLE 3-10.11.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC08	Arsenic						Skin	3E+00	- -	5E-01	3E+00
			Chemical Total	- -	- -	- -	- -	- -		3E+00	- -	5E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						- -					3E+00
	Exposure Medium Total							- -					3E+00
Medium Total								- -					3E+00
Receptor Total								- -					3E+00

Total Risk Across All Media: - -

Total Hazard Across All Media: 3E+00

Total Skin HI = 3E+00

TABLE 4-1
CONTAMINANT SCREENING FOR SURFACE WATER - UPPER MYSTIC LAKE

WELLS G&H SUPERFUND SITE OU3

Chemical	Frequency of Detection	Maximum Detected Concentration (*u* g/L)[1]	Location of Maximum Detected Conc.	Screening Criterion [2]			COPC? [5]
				Adjusted Criterion[3] (*u* g/L)	Unadjusted Criterion[4] (*u* g/L)	Type	
Inorganics							
Aluminum	4/4	426	SW-01-01		87	Freshwater Chronic NAWQC[6]	Yes
Arsenic	3/4	5.2	SW-03-01		150	Freshwater Chronic NAWQC [7]	No
Barium	4/4	41.9	SW-03-01		4	Tier II [9]	Yes
Beryllium	1/4	0.11	SW-04-01		5.3	Freshwater Chronic LOEL	No
Chromium	4/4	3.7	SW-03-01	88	74	Freshwater Chronic NAWQC [8]	No
Cobalt	1/4	0.4	SW-01-01		23	Tier II [9]	No
Copper	4/4	6.8	SW-01-01	9.6	9	Freshwater Chronic NAWQC	No
Iron	4/4	1,080	SW-03-01		1,000	Freshwater Chronic NAWQC	Yes
Lead	3/4	7.5	SW-03-01	3.3	2.5	Freshwater Chronic NAWQC	Yes
Manganese	4/4	317	SW-04-01		120	Tier II [9]	Yes
Nickel	4/4	2.0	SW-02-01	53	52	Freshwater Chronic NAWQC	No
Vanadium	3/4	1.3	SW-01-01/ SW-03-01		20	Tier II [9]	No
Zinc	3/4	45.5	SW-01-01	123	120	Freshwater Chronic NAWQC	No

Notes:

[1] Unfiltered samples.

[2] Unless otherwise noted, taken from USEPA (1986 a,b; 1987, 1992 a, 1998, 2002).

[3] Metals criterion adjusted for hardness (103 mg/L as $CaCO_3$) and converted to unfiltered criterion (see equations provided in USEPA 2002).

[4] Criterion as presented in USEPA 2002; metals not corrected for hardness or conversion to unfiltered criterion.

[5] Analytes with maximum detected concentrations exceeding screening criteria were included in the BERA.

[6] Criterion reported as total recoverable metal and is not hardness dependant.

[7] Value reported for arsenic $^{3+}$.

[8] Value reported for chromium $^{3+}$, it is assumed that chromium in surface water is present in reduced form.

[9] As presented in Suter and Tsao (1996), Great Lakes Water Quality Initiative Tier II Methodology.

NAWQC - National Ambient Water Quality Criterion
BERA - Baseline Ecological Risk Assessment
COPC - Chemical of Potential Concern

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TABLE 4-2
CONTAMINANT SCREENING FOR SURFACE WATER - MAIN CHANNEL OF THE ABERJONA RIVER

WELLS G&H SUPERFUND SITE OU3

Chemical	Frequency of Detection	Maximum Detected Concentration (*u* g/L)[1]	Location of Maximum Detected Conc.	Screening Criterion [2]			COPC? [5]
				Adjusted Criterion[3] (*u* g/L)	Unadjusted Criterion[4] (*u* g/L)	Type	
Volatile Organics							
Chloroform	1/10	1.0	SW-05-01		1,240	Freshwater Chronic LOEL	No
cis-1,2-Dichloroethene	3/10	4.0	SW-16-01		11,600	Freshwater Acute LOEL [6]	No
Trichloroethene	2/10	2.0	SW-16-01		21,900	Freshwater Chronic LOEL	No
Tetrachloroethene	1/10	2.0	SW-05-01		840	Freshwater Chronic LOEL	No
Pesticides							
alpha-Chlordane	1/10	0.0021	SW-12-01		0.0043	Freshwater Chronic NAWQC [7]	No
gamma-Chlordane	1/10	0.0014	SW-11-01		0.0043	Freshwater Chronic NAWQC [7]	No
Heptachlor epoxide	2/10	0.0019	SW-12-01		0.0038	Freshwater Chronic NAWQC	No
Methoxychlor	1/10	0.015	SW-11-01		0.03	Freshwater Chronic NAWQC	No
Inorganics							
Aluminum	9/10	2,180	SW-10-01		87	Freshwater Chronic NAWQC[8]	Yes
Antimony	2/10	1.5	SW-10-01		30	Freshwater Chronic NAWQC	No
Arsenic	7/10	77.1	SW-10-01		150	Freshwater Chronic NAWQC[9]	No
Barium	10/10	54.4	SW-10-01		4	Tier II [11]	Yes
Beryllium	2/10	0.18	SW-10-01		5.3	Freshwater Chronic LOEL	No
Cadmium	2/10	2.5	SW-10-01	0.44	0.25	Freshwater Chronic NAWQC	Yes
Chromium	10/10	146	SW-10-01	147	74	Freshwater Chronic NAWQC [10]	No
Cobalt	4/10	4.8	SW-10-01		23	Tier II [11]	No
Copper	10/10	111	SW-10-01	16	9.0	Freshwater Chronic NAWQC	Yes
Iron	10/10	8,470	SW-10-01		1,000	Freshwater Chronic NAWQC	Yes
Lead	6/10	75.9	SW-10-01	7.3	2.5	Freshwater Chronic NAWQC	Yes
Manganese	10/10	777	SW-16-01		120	Tier II [11]	Yes
Mercury	3/10	0.88	SW-10-01		0.77	Freshwater Chronic NAWQC	Yes
Nickel	10/10	6.2	SW-10-01	91	52	Freshwater Chronic NAWQC	No
Vanadium	8/10	7.4	SW-10-01		20	Tier II [11]	No
Zinc	10/10	626	SW-10-01	208	120	Freshwater Chronic NAWQC	Yes

Notes:

[1] Unfiltered samples.

[2] Unless otherwise noted, taken from USEPA (1986a,b; 1987; 1992a, 1998, 2002).

[3] Metals criterion adjusted for hardness (192 mg/L as $CaCO_3$) and converted to unfiltered criterion (see equations provided in USEPA 2002).

[4] Criterion as presented in USEPA 2002; metals not corrected for hardness or conversion to unfiltered criterion.

[5] Analytes with maximum detected concentrations exceeding screening criteria were included in the BERA.

[6] Value is the summation of cis and trans isomers.

[7] No distinction made for isomers.

[8] Criterion reported as total recoverable metal and is not hardness dependant.

[9] Value reported for arsenic $^{3+}$.

[10] Value reported for chromium $^{3+}$, it is assumed that chromium in surface water is present in reduced form.

[11] As presented in Suter and Tsao (1996), Great Lakes Water Quality Initiative Tier II Methodology.

NAWQC - National Ambient Water Quality Criterion
LOEL - Lowest Observable Effect Level
BERA - Baseline Ecological Risk Assessment
COPC - Chemical of Potential Concern

US EPA ARCHIVE DOCUMENT

TABLE 4-3
CONTAMINANT SCREENING FOR SURFACE WATER - ABERJONA RIVER WETLAND

WELLS G&H SUPERFUND SITE OU3

Chemical	Frequency of Detection	Maximum Detected Concentration (*u* g/L)[1]	Location of Maximum Detected Conc.	Screening Criterion[2]			COPC? [5]
				Adjusted Criterion[3] (*u* g/L)	Unadjusted Criterion[4] (*u* g/L)	Type	
Pesticides							
Endosulfan II	1/3	0.0015	SW-13-01		0.056	Freshwater Chronic NAWQC [6]	No
Heptachlor epoxide	1/3	0.0011	SW-13-01		0.0038	Freshwater Chronic NAWQC	No
Inorganics							
Aluminum	2/3	279	SW-13-01		87	Freshwater Chronic NAWQC[7]	Yes
Arsenic	3/3	21.5	SW-13-01		150	Freshwater Chronic NAWQC[8]	No
Barium	3/3	37.9	SW-13-01		4	Tier II [10]	Yes
Cadmium	1/3	0.16	SW-18-01	0.52	0.25	Freshwater Chronic NAWQC	No
Chromium	3/3	10.9	SW-13-01	179	74	Freshwater Chronic NAWQC [9]	No
Cobalt	3/3	1.1	SW-18-01		23	Tier II [10]	No
Copper	3/3	14.1	SW-13-01	20	9.0	Freshwater Chronic NAWQC	No
Iron	3/3	1,980	SW-13-01		1,000	Freshwater Chronic NAWQC	Yes
Lead	2/3	9.5	SW-13-01	9.9	2.5	Freshwater Chronic NAWQC	No
Manganese	3/3	493	SW-13-01		120	Tier II [10]	Yes
Mercury	2/3	0.26	SW-13-01		0.77	Freshwater Chronic NAWQC	No
Nickel	3/3	2.4	SW-13-01	111	52	Freshwater Chronic NAWQC	No
Vanadium	3/3	1.5	SW-18-01		20	Tier II [10]	No
Zinc	3/3	64.3	SW-13-01	255	120	Freshwater Chronic NAWQC	No

Notes:

[1] Unfiltered samples.

[2] Unless otherwise indicated, taken from USEPA (1986a,b; 1987; 1992a, 1998, 2002).

[3] Metals criterion adjusted for hardness (244 mg/L as $CaCO_3$) and converted to unfiltered criterion (see equations provided in USEPA 2002).

[4] Criterion as presented in USEPA 2002; metals not corrected for hardness or conversion to unfiltered criterion.

[5] Analytes with maximum detected concentrations exceeding screening criteria were included in the BERA.

[6] Value reported for endosulfan.

[7] Criterion reported as total recoverable metal and is not hardness dependant.

[8] Value reported for arsenic $^{3+}$.

[9] Value reported for chromium $^{3+}$, it is assumed that chromium in surface water is present in reduced form.

[10] As presented in Suter and Tsao (1996), Great Lakes Water Quality Initiative Tier II Methodology.

NAWQC - National Ambient Water Quality Criterion
BERA - Baseline Ecological Risk Assessment
COPC - Chemical of Potential Concern

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TABLE 4-4
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - NON-REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]
Metals - ug/L								
Aluminum	27.3		2180		SW-10-01	15 / 17	31.1 - 36.9	253
Barium	29.2		54.4		SW-10-01	17 / 17	N/A	37
Cadmium	0.16		2.5		SW-10-01	3/17	0.099 - 0.15	0.30
Copper	1.7		111		SW-10-01	17 / 17	N/A	12
Iron	304		8470		SW-10-01	17 / 17	N/A	1561
Lead	0.93999		75.9	J	SW-10-01	11 / 17	0.74 - 0.85	7.4
Manganese	70.9		777.5		SW-16-01	17 / 17	N/A	422
Mercury	0.04	J	0.88		SW-10-01	8 / 17	0.08 - 0.2	0.15
Zinc	10.8		626	J	SW-10-01	16 / 17	4	72

N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples

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TABLE 4-5
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration[1]	Detection Frequency	Range of Detection Limits	Average Concentration[1]
Metals - ug/L								
Aluminum	21.3		2500		SW-MC-01	9 / 11	23.5 - 29.2	315
Barium	15.4		64		SW-MC-01	11 / 11	N/A	31
Cadmium						0 / 11	0.15 - 0.78	0.25
Copper	0.45		13.8		SW-MC-01	8 / 11	0.35 - 1.4	2.6
Iron	118		15800		SW-MC-01	11 / 11	N/A	2671
Lead	0.665	J	51.4		SW-MC-01	8 / 11	0.75	6.9
Manganese	46.4		1960		SW-MC-01	11 / 11	N/A	451
Mercury	0.097		0.13		SW-24-01	4 / 11	0.04 - 0.087	0.058
Zinc	1.375	J	71.7		SW-MC-01	7 / 11	1.6 - 9	13

N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples

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TABLE 4-6
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION 23
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion[2] Conc. (u g/L)[3]	Screening Criterion[2] Type
Metals - ug/L										
Aluminum						0 / 1	23.5	12	87	Freshwater Chronic NAWQC
Barium	20.3		20.3		SW-23-01	1 / 1	N/A	20	4.0	Tier II
Cadmium						0 / 1	0.15	0.08	0.23	Freshwater Chronic NAWQC
Copper						0 / 1	0.35	0.18	7.9	Freshwater Chronic NAWQC
Iron	1470		1470		SW-23-01	1 / 1	N/A	1470	1,000	Freshwater Chronic NAWQC
Lead						0 / 1	0.75	0.38	2.5	Freshwater Chronic NAWQC
Manganese	780		780		SW-23-01	1 / 1	N/A	780	120	Tier II
Mercury	0.11		0.11		SW-23-01	1 / 1	N/A	0.11	0.77	Freshwater Chronic NAWQC
Zinc	2.2	J	2.2	J	SW-23-01	1 / 1	N/A	2.2	101	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 82 mg/L as $CaCO_3$

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TABLE 4-7
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION 24
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion[2] Conc. (*u* g/L)[3]	Screening Criterion[2] Type
Metals - ug/L										
Aluminum	142		142		SW-24-01	1 / 1	N/A	142	87	Freshwater Chronic NAWQC
Barium	45.1		45.1		SW-24-01	1 / 1	N/A	45	4.0	Tier II
Cadmium						0 / 1	0.15	0.08	0.30	Freshwater Chronic NAWQC
Copper	3.9		3.9		SW-24-01	1 / 1	N/A	3.9	10.7	Freshwater Chronic NAWQC
Iron	2780		2780		SW-24-01	1 / 1	N/A	2780	1,000	Freshwater Chronic NAWQC
Lead	6.3		6.3		SW-24-01	1 / 1	N/A	6.3	3.9	Freshwater Chronic NAWQC
Manganese	520		520		SW-24-01	1 / 1	N/A	520	120	Tier II
Mercury	0.13		0.13		SW-24-01	1 / 1	N/A	0.13	0.77	Freshwater Chronic NAWQC
Zinc	16.1	J	16.1	J	SW-24-01	1 / 1	N/A	16	137	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 117 mg/L as $CaCO_3$

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TABLE 4-8
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION 25
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2] Conc. (*u* g/L) [3]	Screening Criterion [2] Type
Metals - ug/L										
Aluminum	47.15		47.15		SW-25-01	1 / 1	N/A	47	87	Freshwater Chronic NAWQC
Barium	24.55		24.55		SW-25-01	1 / 1	N/A	25	4.0	Tier II
Cadmium						0 / 1	0.15	0.08	0.22	Freshwater Chronic NAWQC
Copper	1		1		SW-25-01	1 / 1	N/A	1.0	7.2	Freshwater Chronic NAWQC
Iron	118		118		SW-25-01	1 / 1	N/A	118	1,000	Freshwater Chronic NAWQC
Lead	0.665	J	0.665	J	SW-25-01	1 / 1	N/A	0.67	2.2	Freshwater Chronic NAWQC
Manganese	46.4		46.4		SW-25-01	1 / 1	N/A	46	120	Tier II
Mercury	0.115		0.115		SW-25-01	1 / 1	N/A	0.12	0.77	Freshwater Chronic NAWQC
Zinc	1.375	J	1.375	J	SW-25-01	1 / 1	N/A	1.4	92.8	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 74 mg/L as $CaCO_3$

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TABLE 4-9
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION 26
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2] Conc. (ug/L) [3]	Screening Criterion [2] Type
Metals - ug/L										
Aluminum						0 / 1	29.2	15	87	Freshwater Chronic NAWQC
Barium	40.5		40.5		SW-26-01	1 / 1	N/A	41	4.0	Tier II
Cadmium						0 / 1	0.15	0.08	0.17	Freshwater Chronic NAWQC
Copper	1.4		1.4		SW-26-01	1 / 1	N/A	1.4	5.4	Freshwater Chronic NAWQC
Iron	221		221		SW-26-01	1 / 1	N/A	221	1,000	Freshwater Chronic NAWQC
Lead						0 / 1	0.75	0.38	1.4	Freshwater Chronic NAWQC
Manganese	285		285		SW-26-01	1 / 1	N/A	285	120	Tier II
Mercury						0 / 1	0.08	0.040	0.77	Freshwater Chronic NAWQC
Zinc	2.7	J	2.7	J	SW-26-01	1 / 1	N/A	2.7	70.0	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 53 mg/L as $CaCO_3$

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TABLE 4-10
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION 27
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2] Conc. (*u* g/L) [3]	Screening Criterion [2] Type
Metals - ug/L										
Aluminum	21.3		21.3		SW-27-01	1 / 1	N/A	21	87	Freshwater Chronic NAWQC
Barium	15.4		15.4		SW-27-01	1 / 1	N/A	15	4.0	Tier II
Cadmium						0 / 1	0.15	0.08	0.20	Freshwater Chronic NAWQC
Copper	0.45		0.45		SW-27-01	1 / 1	N/A	0.45	6.6	Freshwater Chronic NAWQC
Iron	251		251		SW-27-01	1 / 1	N/A	251	1,000	Freshwater Chronic NAWQC
Lead						0 / 1	0.75	0.38	1.9	Freshwater Chronic NAWQC
Manganese	47.5		47.5		SW-27-01	1 / 1	N/A	48	120	Tier II
Mercury	0.097		0.097		SW-27-01	1 / 1	N/A	0.097	0.77	Freshwater Chronic NAWQC
Zinc						0 / 1	1.6	0.80	85.3	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 67 mg/L as $CaCO_3$

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TABLE 4-11
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION SW-01-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2]	
									Conc. (*u* g/L) [3]	Type
Metals - ug/L										
Aluminum	2500		2500		SW-MC-01	1 / 1	N/A	2500	87	Freshwater Chronic NAWQC
Barium	64		64		SW-MC-01	1 / 1	N/A	64	4.0	Tier II
Cadmium						0 / 1	0.78	0.4	0.28	Freshwater Chronic NAWQC
Copper	13.8		13.8		SW-MC-01	1 / 1	N/A	14	9.8	Freshwater Chronic NAWQC
Iron	15800		15800		SW-MC-01	1 / 1	N/A	15800	1,000	Freshwater Chronic NAWQC
Lead	51.4		51.4		SW-MC-01	1 / 1	N/A	51	3.4	Freshwater Chronic NAWQC
Manganese	1960		1960		SW-MC-01	1 / 1	N/A	1960	120	Tier II
Mercury						0 / 1	0.087	0.044	0.77	Freshwater Chronic NAWQC
Zinc	71.7		71.7		SW-MC-01	1 / 1	N/A	72	125.9	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 106 mg/L as $CaCO_3$

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TABLE 4-12
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION SW-02-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2]	
									Conc. (*u* g/L) [3]	Type
Metals - ug/L										
Aluminum	121		121		SW-MC-02	1 / 1	N/A	121	87	Freshwater Chronic NAWQC
Barium	22.55		22.55		SW-MC-02	1 / 1	N/A	23	4.0	Tier II
Cadmium						0 / 1	0.78	0.4	0.27	Freshwater Chronic NAWQC
Copper						0 / 1	1.4	0.70	9.5	Freshwater Chronic NAWQC
Iron	3085		3085		SW-MC-02	1 / 1	N/A	3085	1,000	Freshwater Chronic NAWQC
Lead	1.15	J	1.15	J	SW-MC-02	1 / 1	N/A	1.2	3.3	Freshwater Chronic NAWQC
Manganese	277.5		277.5		SW-MC-02	1 / 1	N/A	278	120	Tier II
Mercury						0 / 1	0.04	0.020	0.77	Freshwater Chronic NAWQC
Zinc						0 / 1	3.9	2.0	121.8	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 102 mg/L as $CaCO_3$

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TABLE 4-13
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION SW-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2] Conc. (*u* g/L) [3]	Screening Criterion [2] Type
Metals - ug/L										
Aluminum	115		184		SW-MC-03-01	2 / 2	N/A	150	87	Freshwater Chronic NAWQC
Barium	22.5		28.5		SW-MC-03-01	2 / 2	N/A	26	4.0	Tier II
Cadmium						0 / 2	0.78	0.4	0.22	Freshwater Chronic NAWQC
Copper	2.4	J	2.4	J	SW-MC-03-01	1 / 2	1.4	1.6	7.2	Freshwater Chronic NAWQC
Iron	1270		2210		SW-MC-03-01	2 / 2	N/A	1740	1,000	Freshwater Chronic NAWQC
Lead	2.7	J	3.2	J	SW-MC-03	2 / 2	N/A	3.0	2.2	Freshwater Chronic NAWQC
Manganese	159		425		SW-MC-03-01	2 / 2	N/A	292	120	Tier II
Mercury						0 / 2	0.04	0.020	0.77	Freshwater Chronic NAWQC
Zinc	14.7	J	14.7	J	SW-MC-03-01	1 / 2	8.2	9.4	92.8	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 74 mg/L as $CaCO_3$

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TABLE 4-14
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION SW-04-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion [2] Conc. (*u* g/L) [3]	Screening Criterion [2] Type
Metals - ug/L										
Aluminum	102		102		SW-MC-04	1 / 1	N/A	102	87	Freshwater Chronic NAWQC
Barium	28		28		SW-MC-04	1 / 1	N/A	28	4.0	Tier II
Cadmium						0 / 1	0.78	0.4	0.24	Freshwater Chronic NAWQC
Copper	2.6	J	2.6	J	SW-MC-04	1 / 1	N/A	2.6	8.2	Freshwater Chronic NAWQC
Iron	1070		1070		SW-MC-04	1 / 1	N/A	1070	1,000	Freshwater Chronic NAWQC
Lead	4	J	4	J	SW-MC-04	1 / 1	N/A	4.0	2.6	Freshwater Chronic NAWQC
Manganese	250		250		SW-MC-04	1 / 1	N/A	250	120	Tier II
Mercury						0 / 1	0.04	0.020	0.77	Freshwater Chronic NAWQC
Zinc						0 / 1	9	4.5	105.4	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 86 mg/L as $CaCO_3$

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TABLE 4-15
SUMMARY OF SURFACE WATER COPCs DETECTED IN SURFACE WATER - STATION SW-12-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration[1]	Minimum Qualifier	Maximum Detected Concentration[1]	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration[1]	Screening Criterion[2] Conc. (ug/L)[3]	Screening Criterion[2] Type
Metals - ug/L										
Aluminum	202		202		SW-MC-12	1 / 1	N/A	202	87	Freshwater Chronic NAWQC
Barium	29.8		29.8		SW-MC-12	1 / 1	N/A	30	4.0	Tier II
Cadmium						0 / 1	0.78	0.4	0.24	Freshwater Chronic NAWQC
Copper	1.7	J	1.7	J	SW-MC-12	1 / 1	N/A	1.7	8.0	Freshwater Chronic NAWQC
Iron	1110		1110		SW-MC-12	1 / 1	N/A	1110	1,000	Freshwater Chronic NAWQC
Lead	5.6		5.6		SW-MC-12	1 / 1	N/A	5.6	2.5	Freshwater Chronic NAWQC
Manganese	210		210		SW-MC-12	1 / 1	N/A	210	120	Tier II
Mercury						0 / 1	0.04	0.020	0.77	Freshwater Chronic NAWQC
Zinc	21.1	J	21.1	J	SW-MC-12	1 / 1	N/A	21	103.4	Freshwater Chronic NAWQC

NAWQC = National Ambient Water Quality Criterion
N/A = Not Applicable or Not Available
J = Estimated Value
[1] Unfiltered samples
[2] NAWQC taken from USEPA (1986a,b; 1987; 1992a, 1998).
Tier II Values from Suter and Tsao (1996), Great Lakes Water Quality Initiative
[3] Unfiltered criteria based on hardness of 84 mg/L as $CaCO_3$

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TABLE 4-16
CONTAMINANT SCREENING FOR SEDIMENT - ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Chemical	Frequency of Detection	Maximum Detected Level	Location of Maximum Detected Level	Screening Criterion		COPC? [2]	Reason for Exclusion [3]
				Level	Type [1]		
VOCs (mg/kg)							
1,1,1-Trichloroethane	3 / 100	110	SD-TT-30-01-TR	na	na	No	DF
1,1,2-Trichloro-1,2,2-trifluoroethane	1 / 5	37.5	SD-UF-02-TR	na	na	No	LC
1,1-Dichloroethane	1 / 87	3	SD-18-01-FW	27	SCV	No	BSV/DF
1,2-Dichloroethene(total)	8 / 65	59	SD-18-01-FW	400	SCV	No	BSV
2-Butanone	22 / 71	290	SD-19-01-FW	270	SCV	Yes	
Acetone	22 / 81	7300	SD-TT-30-01-TR	8.7	SCV	Yes	
Benzene	8 / 87	22	SD-21-01-ME	57	SQB	No	BSV
Carbon Disulfide	3 / 63	29	SD-10-02-TR	0.85	SCV	No	DF
cis -1,2-Dichloroethene	18 / 28	562	SD-20-01-ME	400	SCV	Yes	
Ethylbenzene	4 / 87	9	SD-06-03-ME	3600	SQB	No	BSV/DF
Methyl Acetate	4 / 6	530	SD-TT-30-01-TR	na	na	No	LC
Methylene chloride	2 / 101	100	SD-22-03-FW	370	SCV	No	BSV/DF
Naphthalene	3 / 26	208	SD-21-01-ME	480	ERL	No	BSV
Tetrachloroethene	5 / 90	3164	SD-22-02-ME	530	SQB	Yes	
Toluene	3 / 63	22	SD-TT-30-01-TR	670	SQB	No	BSV/DF
trans -1,2-Dichloroethene	1 / 28	387	SD-11-01-ME	400	SCV	No	BSV/DF
Trichloroethene	18 / 91	2025	SD-20-01-ME	1600	SQB	Yes	
Vinyl chloride	2 / 87	255	SD-11-01-ME	na	na	No	DF
Xylene, m/p-	2 / 28	25	SD-06-03-ME	25	SQB	No	BSV
SVOCs (mg/kg)							
2-Methylnaphthalene	28 / 98	220	SD-09-06-FW	70	ERL	Yes	
Acenaphthene	39 / 99	520	SD-09-06-FW	620	SQC	No	BSV
Acenaphthylene	38 / 98	480	SD-07-10-FW	44	ERL	Yes	
Anthracene	55 / 99	1300	SD-06-03-FW	220	LEL	Yes	
Benzo(a)anthracene	85 / 109	9600	SD-07-10-ME	320	LEL	Yes	
Benzo(a)pyrene	84 / 106	10000	SD-07-10-ME	430	ERL	Yes	
Benzo(b)fluoranthene	95 / 116	16000	SD-07-10-ME	240	LEL [4]	Yes	
Benzo(g,h,i)perylene	62 / 103	5300	SD-07-10-ME	170	LEL	Yes	
Benzo(k)fluoranthene	84 / 109	14000	SD-07-05-FW	240	LEL	Yes	
bis(2-ethylhexyl)phthalate	49 / 89	13000	SD-07-05-FW	890000	SCV	No	BSV
Butylbenzylphthalate	9 / 74	620	SD-07-05-FW	11000	SQB	No	BSV
Carbazole	19 / 74	680	SD-07-09-FW	na	na	Yes	
Chrysene	88 / 110	10000	SD-07-10-ME	340	LEL	Yes	
Di-n-octylphthalate	3 / 73	430	SD-07-05-FW	na	na	No	DF
Dibenz(a,h)anthracene	42 / 100	2000	SD-07-10-ME	60	LEL	Yes	
Dibenzofuran	8 / 72	500	SD-09-06-FW	2000	SQB [5]	Yes	
Diethylphthalate	1 / 72	240	SD-07-04-FW	567	SQB [6]	No	BSV/DF
Fluoranthene	102 / 116	23000	SD-07-10-ME	2900	SQC	Yes	
Fluorene	46 / 99	810	SD-09-06-FW	540	SQB	Yes	
Indeno(1,2,3-cd)pyrene	69 / 106	6900	SD-07-10-ME	200	LEL	Yes	
N-nitrosodiphenylamine	7 / 75	560	SD-10-01-FW	na	na	Yes	
Naphthalene	36 / 99	2500	SD-21-02-FW	480	SQB	Yes	
Phenanthrene	81 / 106	12000	SD-07-10-ME	850	SQC	Yes	
Pyrene	100 / 114	15000	SD-07-10-ME	660	ERL	Yes	

TABLE 4-16 (Continued)
CONTAMINANT SCREENING FOR SEDIMENT - ABERJONA RIVER STUDY AREA

Chemical	Frequency of Detection	Maximum Detected Level	Location of Maximum Detected Level	Screening Criterion		COPC? [2]	Reason for Exclusion [3]
				Level	Type [1]		
Pesticides/PCBs (mg/kg)							
4,4'-DDD	74 / 111	310	SD-13-03-ME	8	LEL	Yes	
4,4'-DDE	91 / 115	160	SD-10-01-ME	5	LEL	Yes	
4,4'-DDT	62 / 104	47	SD-07-10-FW	1.6	ERL	Yes	
Aldrin	23 / 96	18	SD-10-01-ME	2	LEL	Yes	
alpha -BHC	14 / 98	2.7	SD-07-02-FW	6	LEL	No	BSV
alpha -Chlordane	71 / 111	93	SD-13-03-ME	7	LEL	Yes	
Aroclor-1248	26 / 103	560	SD-10-01-ME	30	LEL	Yes	
Aroclor 1254	10 / 103	2600	SD-JY-07	60	LEL	Yes	
Aroclor-1260	38 / 105	2400	SD-JY-07	5	LEL	Yes	
beta -BHC	19 / 101	6.6	SD-07-07-FW	5	LEL	Yes	
delta -BHC	21 / 95	25	SD-06-03-FW	3	LEL [7]	Yes	
Dieldrin	54 / 103	20	SD-14-03-FW	52	SQC	No	BSV
Endosulfan I	23 / 105	68	SD-21-01-FW	2.9	SQB	Yes	
Endosulfan II	23 / 96	8.4	SD-07-09-FW	14	SQB	No	BSV
Endosulfan Sulfate	9 / 94	3.9	SD-07-04-FW	na	na	Yes	
Endrin	43 / 101	17	SD-06-03-ME	20	SQC	No	BSV
Endrin Aldehyde	34 / 97	27	SD-07-02-ME	na	na	Yes	
Endrin Ketone	4 / 93	2.9	SD-08-02-FW	na	na	No	DF
gamma -BHC (Lindane)	4 / 93	1.4	SD-07-02-FW	3.7	SQB	No	BSV/DF
gamma -Chlordane	66 / 108	650	SD-13-03-ME	0.5	ERL	Yes	
Heptachlor	12 / 93	1.6	SD-07-06-FW	68	SCV	No	BSV
Heptachlor Epoxide	21 / 96	4.9	SD-22-01-FW	5	LEL	No	BSV
Methoxychlor	3 / 93	12	SD-07-10-FW	19	SQB	No	BSV/DF
Inorganics (mg/kg)							
Aluminum	341 / 355	34400	SD-13-02-FW	25500	TEL	Yes	
Antimony	196 / 317	329	SD-TT-22-01	2	ERL	Yes	
Arsenic	338 / 353	4550	SD-12-03-ME	8.2	ERL	Yes	
Barium	339 / 355	3420	SD-WW-11	na	na	Yes	
Beryllium	280 / 351	2.9	SD-19-01-ME	na	na	Yes	
Cadmium	302 / 354	37.7	SD-01-06-FW	1.2	ERL	Yes	
Chromium	351 / 355	24600	SD-WW-08	81	ERL	Yes	
Cobalt	351 / 355	130	SD-CB-03-06	50	LEL*	Yes	
Copper	351 / 355	3760	SD-TT-30-03	34	ERL	Yes	
Cyanide	57 / 122	12.1	SD-WS-08	0.1	LEL*	Yes	
Iron	351 / 355	258000	SD-19-01-TR	20000	LEL	Yes	
Lead	351 / 355	41000	SD-TT-22-01	47	ERL	Yes	
Manganese	351 / 355	3060	SD-UM-02	460	LEL	Yes	
Mercury	300 / 344	89.2	SD-TT-30-03	0.15	ERL	Yes	
Nickel	338 / 355	177	SD-CB-04-03	21	ERL	Yes	
Selenium	223 / 351	30.3	SD-12-03-ME	na	na	Yes	
Silver	104 / 320	11.5	SD-CB-04-02	0.5	LEL*	Yes	
Thallium	148 / 331	18.1	SD-BW-03	na	na	Yes	
Vanadium	341 / 355	180	SD-UM-02	na	na	Yes	
Zinc	350 / 355	8750	SD-CB-04-03	120	LEL	Yes	

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TABLE 4-16 (Continued)
CONTAMINANT SCREENING FOR SEDIMENT - ABERJONA RIVER STUDY AREA

Notes:

[1] SCV, SQB, and SQCs based on 1% sediment organic carbon content; where SCV, SQBs and SQCs are used, sediment organic carbon content was greater than 1%, unless indicated otherwise

[2] Analytes with maximum detected concentrations exceeding screening criteria were included in the BERA.

[3] Reasons for exclusion were that the maximum level was below the screening value (BSV) and/or the frequency of detection was less than or equal to 5% (DF).

[4] Screening value for benzo(k)fluoranthene

[5] Organic carbon content at SD-09-06-FW was 0.1%; if the SQB were adjusted based on 0.1% organic carbon content, the maximum level of dibenzofuran would be greater than the screening criterion.

[6] SQB was adjusted downward for organic carbon content at SD-01-07-FW (0.9%)

[7] Value for BHC in Persaud *et al.* (1993)

DF - detection frequency

BSV - below screening value

LC - laboratory contaminant

ERL - NOAA Effects Range-Low (Long *et al* ., 1995; Long and Morgan, 1990)

SCV - Secondary Chronic Value (Jones *et al* ., 1997)

SQC - USEPA Sediment Quality Criterion (USEPA, 1993 b,c) - used for endrin and dieldrin only

SQB - USEPA Office of Solid Waste and Emergency Response Sediment Quality Benchmark (USEPA, 1996)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (Persaud *et al* ., 1993)

LEL*- Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996)

TEL - Threshold Effects Level (Buchman, 1999)

na - not available

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TABLE 4-17
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT NON-REFERENCE STATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	9	J	290	J	SD-19-01-FW	22 / 71	11 - 50	34
Acetone	58	J	7300	J	SD-TT-30-01-TR	22 / 81	10 - 430	317
cis-1,2-Dichloroethene	7	J	562	J	SD-20-01-ME	18 / 28	9 - 225	77.5
Tetrachloroethene	41	J	3164		SD-22-02-ME	5 / 90	11 - 790	82.4
Trichloroethene	6	J	2025	J	SD-20-01-ME	18 / 91	9 - 114	50.7
SVOCs - ug/Kg								
2-Methylnaphthalene	10	J	220	J	SD-09-06-FW	28 / 98	1 - 2900	254
Acenaphthylene	1	J	480	J	SD-07-10-FW	38 / 98	1 - 2900	245
Anthracene	18	J	1300	J	SD-06-03-FW	55 / 99	67 - 2300	309
Benzo(a)anthracene	40	J	9600		SD-07-10-ME	85 / 109	67 - 890	1033
Benzo(a)pyrene	33	J	10000		SD-07-10-ME	84 / 106	67 - 2100	1093
Benzo(b)fluoranthene	45	J	16000	J	SD-07-10-ME	95 / 116	67 - 870	1642
Benzo(g,h,i)perylene	44	J	5300		SD-07-10-ME	62 / 103	10 - 2300	636
Benzo(k)fluoranthene	45	J	14000	J	SD-07-05-FW	84 / 109	67 - 2300	1200
Carbazole	63	J	680	J	SD-07-09-FW	19 / 74	130 - 2900	304
Chrysene	40	J	10000		SD-07-10-ME	88 / 110	67 - 890	1307
Dibenz(a,h)anthracene	44	J	2000		SD-07-10-ME	42 / 100	2 - 2900	331
Dibenzofuran	56	J	500		SD-09-06-FW	8 / 72	130 - 2900	319
Fluoranthene	42	J	23000		SD-07-10-ME	102 / 116	67 - 890	2258
Fluorene	14	J	810		SD-09-06-FW	46 / 99	1 - 2300	265
Indeno(1,2,3-cd)pyrene	21	J	6900		SD-07-10-ME	69 / 106	67 - 2300	678
Naphthalene	12	J	2500	J	SD-21-02-FW	36 / 99	1 - 2900	282
N-nitrosodiphenylamine	58	J	560	J	SD-10-01-FW	7 / 75	130 - 2900	345
Phenanthrene	62	J	12000		SD-07-10-ME	81 / 106	67 - 890	1155
Pyrene	52	J	15000		SD-07-10-ME	100 / 114	67 - 870	1837
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.46	J	310		SD-13-03-ME	74 / 111	0.31 - 43	27
4,4'-DDE	0.089	J	160	J	SD-10-01-ME	91 / 115	0.31 - 43	20
4,4'-DDT	0.29	J	47		SD-07-10-FW	62 / 104	0.31 - 49	7
Aldrin	0.12	J	18	J	SD-10-01-ME	23 / 96	0.15 - 25	1.9
alpha-Chlordane	0.28	J	93		SD-13-03-ME	71 / 111	0.15 - 22	12.5
Aroclor 1248	8.1	J	560	J	SD-10-01-ME	26 / 103	2.6 - 490	68
Aroclor 1254	45		2600		SD-JY-07	10 / 103	2.6 - 490	118
Aroclor 1260	11		2400		SD-JY-07	38 / 105	2.6 - 490	155
beta-BHC	0.1	J	6.6		SD-07-07-FW	19 / 101	0.15 - 25	1.9
delta-BHC	0.08	J	25	J	SD-06-03-ME	21 / 95	0.15 - 25	2.5
Endosulfan I	0.11	J	68	J	SD-21-01-FW	23 / 105	0.15 - 25	4.2
Endosulfan Sulfate	0.33	J	3.9	J	SD-07-04-FW	9 / 94	0.31 - 49	3.4
Endrin Aldehyde	0.47	J	27	J	SD-07-02-ME	34 / 97	0.31 - 49	4.3
gamma-Chlordane	0.12	J	650	J	SD-13-03-ME	66 / 108	0.15 - 25	13.6
Metals - mg/Kg								
Aluminum	1865		34400	J	SD-13-02-FW	352 / 352	3.1012 - 370	10109
Antimony	0.325	J	329	J	SD-TT-22-01	196 / 314	0.067 - 103	6.35
Arsenic	2.4		4550		SD-12-03-ME	349 / 350	0.22 - 406	229
Barium	6		3420		SD-WW-11	350 / 352	0.018 - 35.9	84
Beryllium	0.12		2.9		SD-19-01-ME	288 / 348	0.016 - 4.75	0.64
Cadmium	0.045		37.7		SD-01-06-FW	307 / 351	0.0048 - 22.7	5.79
Chromium	3.3	J	24600	J	SD-WW-08	352 / 352	0.055 - 63.7	945
Cobalt	0.79		130	J	SD-CB-03-06	352 / 352	0.3101 - 100	14.5
Copper	4.2	J	3760	J	SD-TT-30-03	352 / 352	0.082 - 45	340
Cyanide	0.26	J	12.1	J	SD-WS-08	57 / 122	0.0942 - 2	1.02
Iron	2310	J	258000		SD-19-01-TR	352 / 352	0.57 - 2406	25435
Lead	1.9	J	41000	J	SD-TT-22-01	352 / 352	0.1861 - 75	478
Manganese	34.4	J	3060		SD-UM-02	352 / 352	0.018 - 12.7	468
Mercury	0.05	J	89.2	J	SD-TT-30-03	310 / 341	0.0037 - 100	2.02
Nickel	0.59	J	177		SD-CB-04-03	347 / 352	0.15 - 63	21
Selenium	0.53	J	30.3		SD-12-03-ME	223 / 348	0.052 - 498	2.76
Silver	0.18	J	11.5		SD-CB-04-02	109 / 317	0.0094 - 41.7	0.53
Thallium	0.2225	J	18.1	J	SD-BW-03	148 / 328	0.038 - 400	1.20
Vanadium	4.2		180		SD-UM-02	352 / 352	0.073 - 87	43
Zinc	15.2		8750		SD-CB-04-03	347 / 352	0.16 - 634	1165
Total Combustible Organics (mg/Kg)	1390		912000	J	SD-12-01-ME	77 / 80	117 - 2000	195505
Total Organic Carbon (mg/Kg)	602		815000	J	SD-WH-07-TR	133 / 139	114 - 18500	105378

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 4-18
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT REFERENCE LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	17.5	J	680		SD-MC-02	4 / 22	10 - 46	52
Acetone	23	J	2200	J	SD-MC-02	12 / 24	10 - 220	185
cis-1,2-Dichloroethene						0 / 10	7 - 46	9.3
Tetrachloroethene						0 / 24	7 - 69	9.7
Trichloroethene						0 / 24	7 - 46	8.2
SVOCs - ug/Kg								
2-Methylnaphthalene	22	J	360	J	SD-24-02-FW	6 / 26	67 - 3100	257
Acenaphthylene	22	J	800	J	SD-24-02-FW	10 / 26	67 - 3100	304
Anthracene	48	J	1900	J	SD-24-02-FW	13 / 26	67 - 3100	406
Benzo(a)anthracene	110	J	5900		SD-24-02-FW	18 / 26	67 - 1000	1151
Benzo(a)pyrene	130	J	5500		SD-24-02-FW	18 / 26	67 - 1000	1117
Benzo(b)fluoranthene	150	J	10000		SD-24-02-FW	23 / 26	67 - 1000	1534
Benzo(g,h,i)perylene	190	J	2200	J	SD-25-02-FW	11 / 26	67 - 1000	511
Benzo(k)fluoranthene	400		9600		SD-24-02-FW	16 / 26	67 - 1000	1420
Carbazole	48	J	990	J	SD-24-02-FW	8 / 24	230 - 3100	327
Chrysene	140	J	7300		SD-24-02-FW	18 / 26	67 - 1000	1389
Dibenz(a,h)anthracene	110	J	1100	J	SD-25-02-FW	11 / 26	67 - 1000	289
Dibenzofuran	120	J	1000	J	SD-24-02-FW	5 / 24	230 - 3100	309
Fluoranthene	71	J	15000		SD-24-02-FW	24 / 26	67 - 1000	2547
Fluorene	44	J	2800		SD-24-02-FW	11 / 26	67 - 3100	378
Indeno(1,2,3-cd)pyrene	160	J	3700	J	SD-25-02-FW	14 / 26	67 - 1000	685
Naphthalene	23	J	520	J	SD-24-02-FW	6 / 26	67 - 3100	272
N-nitrosodiphenylamine						0 / 24	230 - 3100	319
Phenanthrene	170	J	12000		SD-24-02-FW	18 / 26	67 - 1000	1534
Pyrene	81	J	11000		SD-24-02-FW	19 / 26	67 - 1000	2067
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.1	J	390		SD-24-03-ME	20 / 26	0.32 - 31	48
4,4'-DDE	1.6	J	470	J	SD-MC-01	19 / 26	0.32 - 31	30
4,4'-DDT	2.1	J	180	J	SD-MC-01	16 / 26	0.32 - 30	22
Aldrin	0.29	J	1.6	J	SD-24-02-FW	3 / 26	0.16 - 16	2.7
alpha-Chlordane	1.3	J	69	J	SD-MC-03	6 / 26	0.16 - 15	6.6
Aroclor 1248	56	J	290	J	SD-24-03-ME	2 / 26	3 - 310	65
Aroclor 1254						0 / 26	3 - 310	52
Aroclor 1260	47		200		SD-24-03-ME	2 / 26	3 - 310	61
beta-BHC	0.4	J	0.75	J	SD-23-01-FW	2 / 26	0.16 - 16	2.7
delta-BHC						0 / 26	0.16 - 16	2.8
Endosulfan I	0.22	J	66	J	SD-25-02-FW	8 / 26	0.16 - 14	6.3
Endosulfan Sulfate	6.6		11	J	SD-25-02-FW	3 / 26	0.32 - 30	5.2
Endrin Aldehyde	1.1	J	5.9	J	SD-24-03-ME	3 / 21	0.32 - 31	6.8
gamma-Chlordane	0.31	J	4.6		SD-24-03-FW	6 / 26	0.16 - 16	2.9
Metals - mg/Kg								
Aluminum	1100		20200		SD-MC-03-TR	27 / 27	3.4 - 9.14	8581
Antimony	0.5	J	5.6		SD-MC-04-TR	20 / 27	0.062 - 1.4	1.01
Arsenic	2.5		44.5		SD-MC-04-TR	27 / 27	0.21 - 1	17
Barium	5.7		173		SD-MC-04-TR	27 / 27	0.018 - 0.4	57
Beryllium	0.15		1.3	J	SD-MC-03-TR	24 / 27	0.027 - 0.22	0.56
Cadmium	0.08699		6.1		SD-MC-04	20 / 27	0.0044 - 0.6	1.34
Chromium	8.9		512		SD-MC-04-TR	27 / 27	0.053 - 1	89
Cobalt	0.76		21.8	J	SD-MC-04-TR	27 / 27	0.36 - 0.37	8.5
Copper	1.9		344		SD-MC-04-TR	27 / 27	0.08 - 0.44	63
Cyanide						0 / 14	0.52 - 1.4	0.39
Iron	2040		51600		SD-MC-04-TR	27 / 27	0.55 - 1.4	16345
Lead	5.6	J	755	J	SD-25-02-FW	27 / 27	0.26 - 0.6	194
Manganese	12.6	J	1980		SD-MC-04-TR	27 / 27	0.018 - 0.24	368
Mercury	0.021	J	0.71		SD-24-03-ME	19 / 26	0.005 - 0.08	0.19
Nickel	1.1		32.1		SD-MC-03-TR	27 / 27	0.14 - 0.8	15
Selenium	0.88	J	3.2	J	SD-25-02-FW	9 / 27	0.049 - 1.1	0.81
Silver	0.085	J	2.9		SD-24-03-FW	8 / 26	0.0088 - 1	0.50
Thallium	1		2.2		SD-25-02-FW	2 / 26	0.038 - 2	0.50
Vanadium	2.5		148		SD-24-03-FW	27 / 27	0.071 - 0.64	35
Zinc	10.4	J	645	J	SD-MC-03-TR	27 / 27	0.16 - 1.7	195
Total Combustible Organics (mg/Kg)	2810		427000		SD-23-03-FW	8 / 8	2000	109001
Total Organic Carbon (mg/Kg)	7650		370000	J	SD-MC-02	19 / 19	250	129647

N/A = Not Applicable or Not Available
J = Estimated Value

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TABLE 4-19
AQUATIC PHYSICAL AND CHEMICAL PARAMETERS-ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Reach	Station[1]	Date	pH	Temp (^{o}C)	Specific Conductivity *(umhos/cm)*	DO[2] (mg/L)	Hardness[3] (mg/L)
1	10	8/23/95	7.4	22.3	850	7.85	208
1	11	8/24/95	6.8	19.6	820	6.30	231
1	12	8/31/95	7.6	16.9	930	6.20	270
1	13	9/1/95	7.0	22.7	990	6.00	248
1	14	9/5/95	7.4	19.6	1000	9.40	266
1	15	9/5/95	7.0	21.9	1000	5.96	240
1	18	9/7/95	7.1	18.5	900	7.88	247
2	8	8/21/95	6.8	18.4	620	4.75	163
2	9	8/22/95	6.9	19.3	695	5.21	175
2	16	8/23/95	6.9	16.3	650	5.16	181
3	7	8/18/95	6.8	25.3	465	4.44	152
4	6	8/18/95	6.6	24.1	640	6.95	142
5	5	8/17/95	6.4	25.0	560	5.12	136
6	1	8/15/95	8.1	26.0	520	4.88	94
6	2	8/16/95	7.8	30.0	475	4.60	106
6	3	8/16/95	7.8	26.5	460	5.43	100
6	4	8/17/95	6.6	27.1	550	1.03	112

Notes:

[1] Data collected at the -01 sampling location within each station.

[2] DO - dissolved oxygen

[3] Hardness was measured as mg/L calcium carbonate

TABLE 4-20
INVERTEBRATES OBSERVED WITHIN THE ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Common Name	Scientific Name/Taxon
Aquatic earthworms	Oligochaeta
Aquatic sowbug	*Caeidotea* sp.
Aquatic mite	*Limnochares* sp.
Backswimmer	*Notonecta undulata*
Bryozoan	*Pectinatella magnifica*
Caddisfly	Trichoptera
Cladoceran	*Chydorus* sp.
Cladoceran	*Hyocryptus sordidus*
Crayfish	*Orconectes* sp.
Cyclopoid copepod	Cyclopoidae
Cyclopoid copepod	*Mesocyclops* sp.
Damselfly nymph	*Argia* sp.
Daphnia	*Daphnidae*
Dragonfly (skimmer)	*Libellula* sp.
Dragonfly nymph	Anisoptera nymph
Fingernail clam	Sphaeriidae
Flatworm	Planariidae
Freshwater scud	*Gammarus* sp.
Kirby's backswimmer	*Notenecta kirbyi*
Leech	Hirudinea
Long-legged water strider	*Gerris* sp.
Midge larvae	Chironomidae
Mosquito larvae	Culicidae
Nematodes	Nematoda
Pond snail	*Gyraulus* sp.
Pond snail	*Physa* sp.
Predaceous diving beetle	*Thermonectus* sp.
Stonefly larvae	Plecoptera
Water boatman	*Corixa* sp.

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TABLE 4-21
PLANTS OBSERVED WITHIN THE ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Common Name	Scientific Name/Taxon
Trees	
American Elm	*Ulmus americanus*
Alder Buckthorn	*Rhamnus frangula*
Black cherry	*Prunus serotina*
Black willow	*Salix nigra*
Boxelder	*Acer negundo*
Elm	*Ulmus* sp.
Gray birch	*Betula lutea*
Northern red oak	*Quercus rubra*
Red maple	*Acer rubrum*
Shadbush	*Amelanchier canadensis*
Silver maple	*Acer saccharinum*
Sugar maple	*Acer saccharum*
Shrubs	
Alder	*Alnus* sp.
Alder buckthorn	*Rhamnus frangula*
Arrowwood	*Viburnum dentatum*
Bramble	*Rubus* sp.
Buttonbush	*Cephalanthus occidentalis*
Elderberry	*Sambucus canadensis*
Highbush blueberry	*Vaccinium corymbosum*
Hobble bush	*Viburnum alnifolium*
Poison sumac	*Rhus vernix*
Silky dogwood	*Cornus amomum*
Spicebush	*Lindera benzoin*
Staghorn sumac	*Rhus typhina*
Steeplebush	*Spiraea tomentosa*
Swamp azalea	*Rhododendron viscosum*
Swamp rose	*Rosa palustris*
Willow	*Salix* sp.
Herbaceous Plants	
Arrow arum	*Peltandra virginica*
Arrowhead	*Sagittaria* sp.
Broad-leaved arrowhead	*Sagittaria latifolia*
Burreed	*Sparganium* sp.
Broad-leaved cattail	*Typha latifolia*
Cinnamon fern	*Osmunda cinnamomea*
Clearweed	*Pilea pumila*
Common nightshade	*Solanum nigrum*
Common reed	*Phragmites* sp.

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TABLE 4-21 (continued)
PLANTS OBSERVED WITHIN THE ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Common Name	Scientific Name/Taxon
Herbaceous Plants (continued)	
Common rush	*Amorpha fruticosa*
Curly leaf pondweed	*Potamogeton crispus*
Dodder	*Cuscuta gronovii*
Duckweed	*Lemna minor*
False indigo	*Amorpha fruticosa*
Field horsetail	*Equisetum arvense*
Grasses	*Graminae*
Hayscented fern	*Dennstaedtia punctilobula*
Marsh cress	*Rorippa islandica*
Meadow-rue	*Thalictrum polyganum*
Morning-glory	*Ipomoea* sp.
Mosses	*Musci*
Pickerelweed	*Pontederia* sp.
Poison ivy	*Rhus radicans*
Purple loosestrife	*Lythrum salicaria*
Richardson pondweed Common Name	*Potamogeton richardsonii*
Royal fern	*Osmunda regalis*
Rushes	*Scirpus* spp.
Sedges	*Carex* spp.
Sensitive fern	*Onoclea sensibilis*
Skunk cabbage	*Symplocarpus foetidus*
Smartweed	*Polygonum* sp.
Soft-stemmed bulrush	*Scirpus validus*
Sphagnum moss	*Sphagnum* sp.
Spikerush	*Eleocharis* sp.
Spotted jewelweed	*Impatiens capensis*
Swamp milkweed	*Asclepias incarnata*
Tussock sedge	*Carex stricta*
Waterweed	*Elodea canadensis*
White water-lilly	*Nymphea odorata*
Winterberry	*Ilex verticillata*
Wood horsetail	*Equisetum sylvaticum*
Vines	
Grape	*Vitis* sp.
Virginia Creeper	*Parthenocissus quinquefolia*

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TABLE 4-22
VERTEBRATES OBSERVED WITHIN THE ABERJONA RIVER STUDY AREA

WELLS G&H SUPERFUND SITE OU3

Common Name	Scientific Name/Taxon
Amphibians	
American toad	*Bufo americanus*
Bullfrog	*Rana catesbeiana*
Green frog	*Rana clamitans melanota*
Reptiles	
Eastern garter snake	*Thamnophis sirtalis sirtalis*
Eastern painted turtle	*Chrysemys picta picta*
Snapping turtle	*Chelydra serpentia*
Birds	
American goldfinch	*Spinus tristus*
Barn swallow	*Hirundo rustica*
Black-capped chickadee	*Parus atricapillus*
Blue jay	*Cyanocitta cristata*
Brown-headed cowbird	*Molothrus ater*
Canada goose	*Branta canadensis*
Common crow	*Corvus brachyrhynchos*
Common grackle	*Quiscalus quiscula*
Common yellowthroat	*Geothylpis trichas*
Eastern kingbird	*Tyrannus tyrannus*
Gray catbird	*Dumetella carolinensis*
Great blue heron	*Ardea herodias*
Green heron	*Butorides striatus*
Herring gull	*Larus argentatus*
Mallard	*Anas platyrhynchos*
Mourning dove	*Zenaida macroura*
Red-tailed hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Ring-neck pheasant	*Phasianus colchicus*
Song sparrow	*Melospiza melodia*
Starling	*Sturnus vulgaris*
Tufted titmouse	*Parus bicolor*
White-breasted nuthatch	*Sitta carolinensis*
Yellow-shafted flicker	*Colaptes auratus*
Yellow warbler	*Dendroica petechia*
Mammals	
Eastern chipmunk	*Tamias striatus*
Gray squirrel	*Sciurus carolinensis*
Muskrat	*Castor canadensis*
Beaver	*Ondatra zibethicus*
Raccoon	*Procyon lotor*
Woodchuck	*Marmota monax*

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TABLE 4-23
SUMMARY OF THE EXPOSURE CHARACTERIZATION FOR THE ABERJONA RIVER STUDY AREA AND REFERENCE LOCATIONS

WELLS G&H SUPERFUND SITE (OU3)

Receptor Group of Concern	Target Species/ Endpoint	Aberjona River Study Area			Reference Locations		
		Exposure area	**Data sets**	**Exposure scenarios**	**Exposure area**	**Data sets**	**Exposure scenarios**
wildlife	green heron	-site-wide	- site-wide crayfish tissue - site-wide fish tissue - site-wide surface water - site-wide sediment[3]	- average case - 95% UCLs	- all reference combined	- all reference crayfish tissue - all reference fish tissue - all reference surface water - all reference sediment[3]	- average case - 95% UCLs
	mallard duck	- 38-acre wetland[1] - site-wide	- reach 1 crayfish tissue - reach 1 plant tissue[2] - reach 1 surface water - reach 1 sediment - site-wide crayfish tissue - site-wide plant tissue[2] - site-wide surface water - site-wide sediment	- average case - 95% UCLs - average case - 95% UCLs	- all reference combined	- all reference crayfish tissue - all reference surface water - all reference plant tissue[2] - all reference sediment[3]	- average case - 95% UCLs
	muskrat	exposure based on individual sampling stations across all the reaches	- sediment data by station - plant tissue by station[2] - crayfish tissue for the reach - surface water for the reach	- average case	reference areas by habitat – lake – river – wetland	- sediment data by habitat - plant tissue by habitat[2] - all reference crayfish data - all reference surface water	- average case
terrestrial/ riparian mammal	shrew	exposure based on individual sampling stations across all the reaches	- sediment data by station - invertebrate tissue by station[4] - surface water for the reach	- average case - 95% UCLs	- all wetland reference stations	- single wetland reference stations (station 24)	- average case - 95% UCLs
piscivorus fish	largemouth bass	- by reach	- whole body, fillet and offal tissue concentrations	- average case	- all reference	- all reference fish (Horn pond and Wright's pond)	- average case
bottom-feeding fish	white sucker	- by reach	- whole body, fillet and offal tissue concentrations	- average case	- all reference	- all reference fish (Horn pond and Wright's pond)	- average case
forage fish	pumpkinseed sunfish	- by reach	- whole body tissue concentrations	- average case	- all reference	- all reference fish (Horn pond and Wright's pond)	- average case

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TABLE 4-23
SUMMARY OF THE EXPOSURE CHARACTERIZATION FOR THE ABERJONA RIVER STUDY AREA AND REFERENCE LOCATIONS

WELLS G&H SUPERFUND SITE (OU3)

benthic invertebrate community	sediment benchmarks	- by reach	- sediment data by reach	- average case - 95% UCLs - maximum detected	reference areas by habitat – lake – river – wetland	- sediment data by habitat	- average case - 95% UCLs - maximum detected
	crayfish tissue	- by reach	- crayfish tissue samples by reach	- average case	- all reference	- all reference crayfish (Lubbard Brook)	- average case
	H. azteca & *C. tentans*	- 15 triad stations	- chronic and acute laboratory toxicity tests	- 10 day acute/42 day chronic - 10-day acute/chronic life cycle	- 5 reference triad stations	- chronic and acute laboratory toxicity tests	n/a
	benthic community composition	- 15 triad stations	- species/abundance data	n/a	- 5 reference triad stations	- species/abundance data	n/a

[1] The 38-acre wetland corresponds to the area of Reach 1

[2] Plant tissue concentrations calculated by multiplying sediment concentration by site-specific uptake factor

[3] Sediment data was used to calculate incidental sediment ingestion, only

[4] Invertebrate tissue concentrations estimated from sediment concentrations and concentration factors

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TABLE 4-24
COPCs DETECTED IN PLANT TISSUE

WELLS G&H SUPERFUND SITE OU3

Detected COPCs	Frequency of Detection Site-wide	Average Concentration Site-wide	Maximum Detected Concentration Site-wide	Frequency of Detection Reference	Average Concentration Reference	Maximum Detected Concentration Reference
Semivolatile Organics (*u* g/kg-wet weight)						
Benzo(a)pyrene	1/6	150	77	0/2	ND	ND
Benzo(b)fluoranthene	4/6	103	100	0/2	ND	ND
Benzo(k)fluoranthene	3/6	123	120	0/2	ND	ND
Chrysene	3/6	119	98	0/2	ND	ND
Fluoranthene	6/6	54	120	0/2	ND	ND
Indeno(1,2,3-cd)pyrene	1/6	148	63	0/2	ND	ND
Phenanthrene	2/6	121	38	0/2	ND	ND
Pyrene	5/6	87	110	0/2	ND	ND
Pesticides/PCBs (*u* g/kg-wet weight)						
4,4'-DDD	3/6	0.4	1.1	2/2	0.0050	0.0052
4,4'-DDE	6/6	0.7	1.2	2/2	0.0009	0.0009
4,4'-DDT	1/6	0.5	0.6	1/2	0.0006	0.0006
alpha -Chlordane	6/6	1.4	2.3	2/2	0.0004	0.0005
Aroclor-1260	6/6	7.0	8.9	0/2	ND	ND
Endosulfan I	1/6	0.3	0.4	0/2	ND	ND
Endrin aldehyde	4/6	1.0	2.9	0/2	ND	ND
gamma -Chlordane	6/6	0.5	0.6	0/2	ND	ND
Inorganics (mg/kg-wet weight)						
Aluminum	6/6	256	348	2/2	77	84
Arsenic	6/6	10.2	15.9	2/2	1.5	1.5
Barium	6/6	3.4	4.1	2/2	5.0	5.2
Cadmium	6/6	0.5	0.8	2/2	0.1	0.1
Chromium	6/6	31.4	71.2	2/2	0.5	0.6
Cobalt	6/6	1.0	2.2	2/2	0.5	0.5
Copper	6/6	16.1	27.1	2/2	1.0	1.0
Iron	6/6	1448	2270	2/2	974	1010
Lead	6/6	11.5	13.9	2/2	3.2	3.3
Manganese	6/6	61.8	109	2/2	151	158
Mercury	6/6	0.1	0.3	0/2	ND	ND
Nickel	6/6	0.7	1.5	1/2	0.1	0.1
Selenium	1/6	0.3	0.6	0/2	ND	ND
Vanadium	6/6	1.4	2.1	2/2	0.7	0.8
Zinc	6/6	107	149	2/2	21	22

ND - Not detected

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TABLE 4-25
COPCs IN CRAYFISH TISSUE

WELLS G&H SUPERFUND SITE OU3

Detected COPCs	Frequency of Detection	Average Concentration	Maximum Detected Concentration[1]	95% UCL / Max Detected Concentration[2]	95% UCL Ref[3]	Frequency of Detection at Reference Locations	Average Concentration at Reference Locations	Max Detected Concentration at Reference Locations[1]	95% UCL Concentration at Reference Locations	95% UCL Ref
Pesticides/PCBs (*u* g/kg-wet weight)										
4,4'-DDD	6 / 8	2.4	4.1	3.3	2	2 / 2	0.79	0.94	0.94	*1
4,4'-DDE	6 / 8	5.0	8.2	6.9	2	2 / 2	4.7	5.3	5.3	*1
4,4'-DDT	8 / 8	1.2	2.2	1.5	3	0 / 2	0.49	0.0	0.0	*1
Aldrin	4 / 8	0.28	0.31	0.31	*2	0 / 2	0.25	0.0	0.0	*1
alpha -Chlordane	6 / 8	0.93	1.8	1.2	2	0 / 2	0.25	0.0	0.0	*1
Aroclor-1248	0 / 8	2.6	0.0	2.9	2	0 / 2	2.5	0.0	0.0	*1
Aroclor-1254	7 / 8	16	24	20	2	0 / 2	2.5	0.0	0.0	*1
Aroclor-1260	8 / 8	26	41	34	2	2 / 2	5.2	5.2	5.2	*1
beta -BHC	0 / 8	0.28	0.0	0.31	2	0 / 2	0.25	0.0	0.0	*1
delta -BHC	0 / 8	0.27	0.0	0.29	2	0 / 2	0.25	0.0	0.0	*1
Endosulfan I	1 / 8	0.38	0.54	0.50	2	0 / 2	0.25	0.0	0.0	*1
Endosulfan sulfate	4 / 8	0.76	1.4	0.99	2	0 / 2	0.49	0.0	0.0	*1
Endrin aldehyde	8 / 8	2.0	3.1	2.7	2	0 / 2	0.49	0.0	0.0	*1
gamma -Chlordane	5 / 8	0.40	0.83	0.56	3	0 / 2	0.25	0.0	0.0	*1
Inorganics (mg/kg-wet weight)										
Aluminum	8 / 8	50	73	59	2	2 / 2	9.8	10	10	*1
Antimony	0 / 7	0.048	0.0	0.052	2	0 / 1	0.048	0.0	0.0	*1
Arsenic	7 / 8	2.2	4.4	3.1	2	0 / 2	0.19	0.0	0.0	*1
Barium	2 / 8	10	18	13	2	2 / 2	15	18	18	*1
Beryllium	0 / 8	0.0054	0.0	0.0062	2	0 / 2	0.0044	0.0	0.0	*1
Cadmium	7 / 7	0.070	0.16	0.10	2	2 / 2	0.080	0.090	0.090	*1
Chromium	8 / 8	1.1	2.5	1.6	2	1 / 1	0.18	0.18	0.18	*1
Cobalt	8 / 8	0.44	0.65	0.54	2	2 / 2	0.42	0.44	0.44	*1
Copper	8 / 8	50	65	57	2	2 / 2	20	21	21	*1
Cyanide	0 / 8	0.24	0.0	0.26	2	0 / 2	0.22	0.0	0.0	*1
Iron	8 / 8	345	645	463	2	2 / 2	66	78	78	*1
Lead	8 / 8	0.78	1.5	1.1	2	0 / 2	0.033	0.0	0.0	*1
Manganese	8 / 8	99	146	122	2	2 / 2	106	108	108	*1
Mercury	1 / 8	0.0092	0.020	0.012	2	0 / 2	0.0055	0.0	0.0	*1
Nickel	0 / 8	0.085	0.0	0.10	2	0 / 1	0.16	0.0	0.0	*1
Selenium	8 / 8	0.41	0.56	0.48	2	1 / 2	0.16	0.24	0.24	*1
Silver	2 / 8	0.032	0.064	0.047	3	1 / 2	0.16	0.21	0.21	*1
Thallium	1 / 8	0.083	0.19	0.11	2	0 / 2	0.065	0.0	0.0	*1
Vanadium	0 / 7	0.15	0.0	0.19	2	N/A	N/A	N/A	N/A	N/A
Zinc	8 / 8	25	29	28	2	2 / 2	18	18	18	*1

N/A = Not Applicable or Not Available

UCL = Upper Confidence Limit

[1] Zero values represent compounds that were not detected

[2] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[3] 95% UCL References: * Maximum detected value is shown

1. Sample size too small to calculate 95% UCL (<4)
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-26
COPCs DETECTED IN SMALL FISH TISSUE

WELLS G&H SUPERFUND SITE OU3

Detected COPCs	Frequency of Detection	Average Concentration	Maximum Detected Concentration	Frequency of Detection at Reference Locations	Average Concentration at Reference Locations	Maximum Detected Concentration at Reference Locations
Pesticides/PCBs (*u* g/kg-wet weight)						
4,4'-DDD	29/30	24.3	45.0	5/6	2.1	3.2 J
4,4'-DDE	27/30	30.9	59.0	6/6	13.3	24
4,4'-DDT	26/30	5.6	12.0	3/6	2.1	2.5 J
Aldrin	9/30	2.5	3.1	0/6	ND	ND
alpha -Chlordane	28/30	18.2	42.0	4/6	1.1	1.3 J
Aroclor-1248	6/30	30.0	47.0	0/6	ND	ND
Aroclor-1260	30/30	67.5	110.0	6/6	19.3	33
beta -BHC	1/30	2.7	1.4	0/6	ND	ND
delta -BHC	2/30	2.5	1.4	0/6	ND	ND
Endosulfan I	6/30	2.6	2.5	2/6	1.3	0.88 J
Endosulfan sulfate	4/30	5.1	2.6	0/6	ND	ND
Endrin aldehyde	7/30	5.0	4.9	0/6	ND	ND
gamma -Chlordane	29/30	8.3	20.0	0/6	ND	ND
Inorganics (mg/kg-wet weight)						
Aluminum	19/33	10.2	66.7	0/6	ND	ND
Antimony	1/29	0.1	0.1	0/6	ND	ND
Arsenic	3/33	0.3	1.4	0/6	ND	ND
Barium	5/33	1.1	1.8	0/6	ND	ND
Cadmium	31/32	0.03	0.1	3/6	0.016	0.018 J
Chromium	32/33	0.4	0.7	4/6	0.302	0.35 J
Cobalt	17/33	0.1	0.1	3/6	0.046	0.05 J
Copper	29/33	1.0	1.7	1/6	0.565	0.71 J
Iron	30/33	54.3	236	4/6	42.8	50.4 J
Lead	10/33	0.2	0.7	0/6	ND	ND
Manganese	1/33	12.6	35.6	1/6	19.1	37 J
Mercury	17/33	0.03	0.054	4/6	0.064	0.098 J
Selenium	33/33	0.7	1.0	6/6	0.62	0.68 J
Silver	0/33	ND	ND	1/6	0.038	0.035 J
Zinc	33/33	26.5	42.0	6/6	27.9	38.3 J

TABLE 4-27
PLANT UPTAKE FACTORS

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Uptake Factor[1] Station 18	Uptake Factor Station 20	Uptake Factor Station 21	Uptake Factor Station 23	Average Uptake Factor	Reference Uptake Factor[2]	Reference Uptake Factor[3]
Semivolatile Organics							
Benzo(a)pyrene	0.947	1.441	1.310	1.269	1.242		
Benzo(b)fluoranthene	0.303	0.318	0.726	0.976	0.581		
Benzo(k)fluoranthene	0.583	3.393	NA	1.058	1.678		
Chrysene	0.573	0.657	1.241	1.104	0.893		
Fluoranthene	0.126	0.439	0.135	0.801	0.375		
Indeno(1,2,3-cd)pyrene	1.213	1.932	4.859	4.790	3.198		
Phenanthrene	1.339	4.678	1.943	0.769	2.182		
Pyrene	0.496	0.607	0.164	0.690	0.489		
Pesticides/PCBs							
4,4'-DDD	0.731	0.250	0.115	0.529	0.406		
4,4'-DDE	0.390	0.346	0.164	0.473	0.343		
4,4'-DDT	2.096	1.877	0.787	0.391	1.288		
alpha-Chlordane	0.814	0.276	0.323	1.758	0.793		
Aroclor-1260	0.487	0.636	0.150	0.726	0.500		
Endosulfan I	3.567	0.112	0.050	1.413	1.285		
Endrin aldehyde	2.158	5.015	1.413	1.422	2.502		
gamma-Chlordane	0.394	0.415	0.107	2.089	0.751		
Metals							
Aluminum	0.169	0.126	0.083	0.146	0.131		
Arsenic	0.183	0.457	0.145	0.885	0.418	0.04	0.037
Barium	0.377	0.300	0.188	2.163	0.757		
Cadmium	0.421	0.274	0.184	2.444	0.831	0.55	0.514
Chromium	0.227	0.141	0.053	0.171	0.148		
Cobalt	0.411	0.199	0.193	1.947	0.687		
Copper	0.193	0.170	0.110	1.102	0.393	0.40	0.123
Iron	0.370	0.401	0.286	1.523	0.645		
Lead	0.242	0.136	0.150	2.286	0.704	0.045	0.038
Manganese	0.530	1.221	1.004	14.673	4.357		
Mercury	0.074	0.301	0.170	0.557	0.276	0.90	0.344
Nickel	0.351	0.124	0.110	0.222	0.202	0.06	0.034
Selenium	0.297	0.249	0.765	1.303	0.653	0.025	0.567
Vanadium	0.314	0.165	0.125	0.482	0.272		
Zinc	0.391	0.299	0.228	9.231	2.537	1.50	0.358

[1] Plant uptake factors calculated from the ratio of average COPC concentration in plant tissue to average COPC concentration in sediment (dry wt:dry wt)

[2] Baes et al. (1984)

[3] Bechtel Jacobs, Co. (1998)

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TABLE 4-28
EXPOSURE FACTORS FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

CHARACTER	VALUE	SOURCE	COMMENT
BODY WEIGHT	0.837 kg	Reeves and Williams (1956) *cited in* USEPA (1993d)	Adult female
FOOD CONSUMPTION RATE	0.071 kg food (dry) / kg body weight (wet) - day	Nagy (1987) *in* Sample *et al.* (1997)	Assuming 0.837 kg body weight
WATER CONSUMPTION RATE	0.101 L / kg body weight (wet) - day	Calder and Braun (1983) *cited in* Sample *et al.* (1997)	Assuming 0.837 kg body weight
SEDIMENT INGESTION	equivalent to 3.3% of diet	Beyer *et al.* (1994)	Value for mallard
COMPOSITION OF DIET	90% plant, 10% animal	Martin *et al.* (1951) and USEPA (1993d)	A portion of the muskrat diet may be animal matter. Ten percent was selected as a conservative value for the Aberjona River Study area. Site-specific crayfish tissue data were used to represent COPC concentrations in the animal portion of the diet.
% MOISTURE IN DIET	crayfish = 76.7%, plants = 87.3%	site-specific	Average % moistures
AREAL SITE USE FACTOR	1	USEPA (1993d)	Home range smaller than study area
TEMPORAL SITE USE FACTOR	1		No migration

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TABLE 4-29
EXPOSURE FACTORS FOR HERON

WELLS G&H SUPERFUND SITE OU3

CHARACTER	VALUE	SOURCE	COMMENT
BODY WEIGHT	0.212 kg (wet)	Dunning (1993) *cited in* Sample *et al* . (1997)	Adult, sex not given
FOOD CONSUMPTION RATE	0.19 kg food (wet) / kg body weight (wet) - day	Kushlan (1978) *cited in* Sample *et al* . (1997)	Assuming 0.212 kg body weight
WATER CONSUMPTION RATE	0.098 L / kg body weight (wet) - day	Calder and Braun (1983) *cited in* Sample *et al.* (1997)	Assuming 0.212 kg body weight
SEDIMENT INGESTION	equivalent to 1% of diet	Sample *et al* . (1997) indicate that sediment ingestion likely to be negligible for heron.	One percent conservatively assumed for Aberjona River Study Area.
COMPOSITION OF DIET	45% fish, 55% invertebrates	Meyerriecks (1962) *cited in* Sample *et al* . (1997)	Site-specific crayfish tissue used to represent COPC concentrations in the invertebrate portion of diet.
% MOISTURE IN DIET	fish = 75.3%, crayfish = 76.7%	site-specific	Average % moistures
AREAL SITE USE FACTOR	1	(USEPA, 1993d)	Home range assumed to be equivalent to or smaller than study area.
TEMPORAL SITE USE FACTOR	0.5	(USEPA, 1993d)	Migrates, present on-site approximately six months per year.

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TABLE 4-30
EXPOSURE FACTORS FOR MALLARD

WELLS G&H SUPERFUND SITE OU3

CHARACTER	VALUE	SOURCE	COMMENT
BODY WEIGHT	1.043 kg (wet)	Nelson and Martin (1953) *cited in* USEPA (1993d)	Adult female
FOOD CONSUMPTION RATE	0.057 kg (dry) / kg body weight (wet) - day	Nagy (1987) *cited in* Sample *et al.* (1997)	Assuming 1.043 kg body weight
WATER CONSUMPTION RATE	0.058 L / kg body weight (wet)	Calder and Braun (1983) *cited in* Sample *et al* . (1997)	Assuming 1.043 kg body weight
SEDIMENT INGESTION	equivalent to 3.3% of diet	Beyer *et al.* (1994)	
COMPOSITION OF DIET	67% invertebrates, 33% plants	Swanson *et al.* (1985) *cited in* USEPA (1993d)	Site-specific crayfish tissue data used to represent COPC concentration in invertebrate portion of diet.
% MOISTURE IN DIET	crayfish = 76.7%, plants = 87.3%	site-specific	Average % moistures
AREAL SITE USE FACTOR	1	USEPA (1993d)	Home range assumed to be equivalent to or smaller than study area.
TEMPORAL SITE USE FACTOR	0.5	USEPA (1993d)	Migrates, present on-site approximately six months per year.

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TABLE 4-31
EXPOSURE FACTORS FOR SHREW

WELLS G&H SUPERFUND SITE OU3

CHARACTER	VALUE	SOURCE	COMMENT
BODY WEIGHT	0.015 kg (wet)	Schlessinger and Potter (1994) *cited in* Sample and Suter (1994)	Adult
FOOD CONSUMPTION RATE	0.6 kg food (wet) / kg body weight (wet) - day	Sample and Suter (1994)	Assuming 0.015 kg body weight
WATER CONSUMPTION RATE	0.22 L / kg body weight (wet) - day	Chew (1951) *cited in* Sample and Suter (1994)	Assuming 0.015 kg body weight
SEDIMENT INGESTION	equivalent to 13% of diet	Talmage and Walton (1993) *cited in* Sample and Suter (1994)	
COMPOSITION OF DIET	31.4% earthworms	Whitaker and Ferraro (1963) *cited in* Sample and Suter (1994)	Remainder of diet assumed to contain significantly lower COPC burdens
% MOISTURE IN DIET	84% (water content of earthworms)	Sample and Suter (1994)	
AREAL SITE USE FACTOR	1	USEPA (1993d)	Home range smaller than study area
TEMPORAL SITE USE FACTOR	1		No migration

TABLE 4-32
APPLICABILITY OF SEDIMENT SAMPLES TO EXPOSURE SCENARIOS FOR INDICATOR SPECIES

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
01	6	lake	SD-01-01-FW	8/15/1995	1.0	x	x	x		x	
			SD-01-02-FW	8/15/1995	4.0	x				x	
			SD-01-03-FW	8/15/1995	1.0	x	x	x		x	
			SD-01-04-FW	8/15/1995	4.0	x				x	
			SD-01-05-FW	8/15/1995	1.0	x	x	x		x	
			SD-01-06-FW	8/15/1995	5.0	x				x	
			SD-01-06-ME	11/12/1997	7.0					x	
			SD-01-07-FW	8/15/1995	6.0					x	
			SD-01-07-ME	11/12/1997	8.0					x	
			SD-01-08-FW	8/15/1995	1.0	x	x	x		x	
			SD-01-09-FW	8/15/1995	5.0	x				x	
			SD-01-10-FW	8/15/1995	6.0					x	
02	6	lake	SD-02-01-FW	8/16/1995	1.5	x		x		x	
			SD-02-01-ME	11/13/1997	5.0	x				x	
			SD-02-02-FW	8/16/1995	4.9	x				x	
			SD-02-02-ME	11/13/1997	7.0					x	
			SD-02-03-FW	8/16/1995	1.0 or 3.3	x	x	x		x	
03	6	lake	SD-03-01-FW	8/16/1995	1.6	x	x	x		x	
			SD-03-02-FW	8/16/1995	2.5	x	x	x		x	
			SD-03-02-ME	11/13/1997	1.5	x	x	x		x	
			SD-03-03-FW	8/16/1995	0.3	x	x	x		x	
04	6	lake	SD-04-01-FW	8/17/1995	4.9	x				x	
			SD-04-02-FW	8/17/1995	4.9	x				x	
			SD-04-02-ME	11/14/1997	7.0					x	
			SD-04-03-FW	8/17/1995	3.3	x				x	
			SD-04-03-ME	11/14/1997	7.0					x	
			SD-AO-01	7/18/2000	4.7	x				x	
			SD-AO-02	7/18/2000	4.4	x				x	
			SD-AO-03	7/18/2000	4.5	x				x	
			SD-AO-03-TR	6/27/2001	5.0	x				x	
			SD-AO-04	7/18/2000	6.3					x	
			SD-AO-05	7/18/2000	5.5					x	
05	5	river	SD-05-01-FW	8/17/1995	1.0	x	x	x		x	
			SD-05-02-FW	8/17/1995	N/A	x	x	x		x	
			SD-05-03-FW	8/17/1995	2.0	x	x	x		x	
			SD-05-03-ME	11/13/1997	3.0	x	x	x		x	
06	4	lake	SD-06-01-FW	8/18/1995	3.3	x				x	
			SD-06-02-FW	8/18/1995	3.3	x				x	
			SD-06-03-FW	8/18/1995	3.3	x				x	
			SD-06-03-ME	11/18/1997	4.0	x				x	
			SD-06-03-TR	6/26/2001	3.8	x				x	
			SD-JP-01	7/10/2000	4.0	x				x	
07	3	lake	SD-07-01-FW	8/18/1995	NA	x				x	
			SD-07-02-FW	8/21/1995	5.0	x				x	
			SD-07-02-ME	11/20/1997	3.4	x				x	
			SD-07-03-FW	8/21/1995	NA	x				x	
			SD-07-04-FW	8/29/1995	NA	x				x	
			SD-07-05-FW	8/21/1995	2.0	x	x	x		x	
			SD-07-05-ME	11/20/1997	1.2	x	x	x		x	
			SD-07-06-FW	8/21/1995	4.0	x				x	
			SD-07-07-FW	8/21/1995	1.5	x	x	x		x	
			SD-07-08-FW	8/21/1995	1.5	x	x	x		x	
			SD-07-09-FW	8/21/1995	1.0	x	x	x		x	
			SD-07-10-FW	8/21/1995	1.0	x	x	x		x	
			SD-07-10-ME	11/19/1997	2.0	x	x	x		x	

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TABLE 4-32
APPLICABILITY OF SEDIMENT SAMPLES TO EXPOSURE SCENARIOS FOR INDICATOR SPECIES

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
08	2	river	SD-08-01-FW	8/21/1995	1.0	x	x	x		x	
			SD-08-02-FW	8/21/1995	1.5	x	x	x		x	
			SD-08-03-FW	8/21/1995	1.5	x	x	x		x	
09	2	river	SD-09-01-FW	8/22/1995	1.0	x	x	x		x	
			SD-09-02-FW	8/22/1995	NA	x	x	x		x	
			SD-09-03-FW	8/22/1995	0.5	x	x	x		x	
			SD-09-04-FW	8/22/1995	1.0	x	x	x		x	
			SD-09-05-FW	8/22/1995	1.0	x	x	x		x	
			SD-09-06-FW	8/22/1995	1.5	x	x	x		x	
			SD-09-07-FW	8/22/1995	2.0	x	x	x		x	
			SD-09-08-FW	8/22/1995	2.0	x	x	x		x	
			SD-09-09-FW	8/22/1995	0.5	x	x	x		x	
			SD-09-10-FW	8/22/1995	0.5	x	x	x		x	
10	1	river	SD-10-01-FW	8/23/1995	2.0	x	x	x		x	
			SD-10-01-ME	11/19/1997	2.0	x	x	x		x	
			SD-10-02-FW	8/23/1995	NA	x	x	x		x	
			SD-10-02-ME	11/19/1997	2.0	x	x	x		x	
			SD-10-02-TR	6/22/2001	1.4	x	x	x		x	
			SD-10-03-FW	8/23/1995	1.5	x	x	x		x	
11	1	river	SD-11-01-ME	11/14/1997	0.5	x	x	x		x	
			SD-11-02-FW	8/24/1995	2.0 or 2.5	x	x	x		x	
			SD-11-03-FW	8/24/1995	2.0 or 2.5	x	x	x		x	
12	1	river	SD-12-01-FW	8/31/1995	1.0	x	x	x		x	
			SD-12-02-FW	8/31/1995	NA	x	x	x		x	
			SD-12-03-FW	8/31/1995	0.5	x	x	x		x	
			SD-12-03-ME	11/20/1997	5.0	x	x	x		x	
			SD-12-03-TR	6/19/2001	4.5	x	x	x		x	
13	1	wetland	SD-13-01-FW	9/1/1995	0.3	x	x	x		x	
			SD-13-01-ME	11/17/1997	2.0	x	x	x		x	
			SD-13-01-TR	6/22/2001	0.3	x	x	x		x	
			SD-13-02-FW	9/1/1995	0.3	x	x	x		x	
			SD-13-03-FW	9/1/1995	0.0	x	x	x		x	
			SD-13-03-ME	11/17/1997	2.0	x	x	x		x	
14	1	river	SD-14-01-FW	9/5/1995	1.0	x				x	
			SD-14-02-FW	9/5/1995	1.0	x				x	
			SD-14-03-FW	9/5/1995	1.5	x				x	
15	1	wetland	SD-15-01-FW	9/5/1995	0.5	x	x	x		x	
			SD-15-01-ME	11/17/1997	2.5	x	x	x		x	
			SD-15-02-FW	9/5/1995	0.5	x	x	x		x	
			SD-15-03-FW	9/5/1995	0.5	x	x	x		x	
16	2	river	SD-16-01-FW	8/29/1995	NA	x	x	x		x	
			SD-16-02-FW	8/23/1995	1.0	x	x	x		x	
			SD-16-03-FW	8/23/1995	1.5	x	x	x		x	
18	1	river	SD-18-01-FW	8/29/1995	NA	x	x	x		x	
			SD-18-02-FW	9/7/1995	0.2	x	x	x		x	
			SD-18-02-ME	11/18/1997	0.5	x	x	x		x	
			SD-18-02-TR	6/21/2001	1.1	x	x	x		x	
			SD-18-03-FW	9/7/1995	0.4	x	x	x		x	
			SD-18-03-ME	11/18/1997	0.3	x	x	x		x	
			SD-11-01-FW	8/24/1995	2.0	x	x	x		x	
19	1	wetland	SD-19-01-FW	8/31/1995	0.0	x	x	x		x	
			SD-19-01-TR	6/19/2001	0.8	x	x	x		x	
			SD-19-02-FW	8/31/1995	0.0	x	x	x		x	
			SD-19-03-FW	8/31/1995	0.0	x	x	x		x	
20	1	wetland	SD-20-01-FW	9/7/1995	0.0	x	x	x	x	x	
			SD-20-01-ME	11/17/1997	2.0	x	x	x		x	
			SD-20-02-FW	9/7/1995	0.0	x	x	x	x	x	
			SD-20-03-FW	9/7/1995	0.0	x	x	x	x	x	

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TABLE 4-32
APPLICABILITY OF SEDIMENT SAMPLES TO EXPOSURE SCENARIOS FOR INDICATOR SPECIES

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
21	1	wetland	SD-21-01-FW	9/8/1995	0.0	x	x	x	x	x	
			SD-21-01-ME	11/14/1997	1.0	x	x	x	x	x	
			SD-21-02-FW	9/8/1995	0.0	x	x	x	x	x	
			SD-21-03-FW	9/8/1995	0.0	x	x	x	x	x	
22/TT-22	1	wetland	SD-22-01-FW	9/8/1995	0.0				x	x	
			SD-22-01-TR	6/18/2001	0.2				x	x	
			SD-22-02-FW	9/8/1995	0.0				x	x	
			SD-22-02-ME	11/12/1997	0.0				x	x	
			SD-22-03-FW	9/8/1995	0.0				x	x	
			SD-TT-22-01	2/7/2001	0.5				x	x	
			SD-TT-22-02	2/7/2001	0.5				x	x	
			SD-TT-22-03	2/7/2001	1.0				x	x	
AM	2	river	SD-AM-01	7/10/2000	1.0	x	x	x		x	(a)
AS	3	river	SD-AS-01	7/10/2000	1.0	x	x	x		x	(a)
			SD-AS-02	7/10/2000	1.5	x	x	x		x	(a)
BW	1	wetland	SD-BW-01	7/17/2002	0.0	x	x	x	x	x	
			SD-BW-02	7/17/2002	0.0	x	x	x	x	x	
			SD-BW-03	7/17/2002	0.0	x	x	x	x	x	
			SD-BW-04	7/17/2002	0.0	x	x	x	x	x	
			SD-BW-05	7/17/2002	0.0	x	x	x	x	x	
			SD-12-01-ME	11/20/1997	1.0	x	x	x	x	x	
CB-01	2	wetland	SD-CB-01-01	2/9/2001	0.5	x	x	x	x	x	(a)
			SD-CB-01-02	2/9/2001	0.5	x	x	x	x	x	(a)
			SD-CB-01-03	2/9/2001	0.3	x	x	x	x	x	(a)
			SD-CB-01-04	2/9/2001	0.3	x	x	x	x	x	(a)
			SD-CB-01-05	2/9/2001	0.7	x	x	x	x	x	(a)
			SD-CB-01-06	2/9/2001	0.2	x	x	x	x	x	(a)
			SD-CB-01-07	2/9/2001	0.5	x	x	x	x	x	(a)
			SD-CB-01-08	2/9/2001	0.7	x	x	x	x	x	(a)
			SD-CB-01-09	2/9/2001	0.5	x	x	x	x	x	(a)
			SD-CB-01-10	2/9/2001	0.3	x	x	x	x	x	(a)
CB-02	2	wetland	SD-CB-02-01	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-02-02	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-02-03	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-02-04	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-02-05	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-02-06	2/8/2001	0.7	x	x	x	x	x	(a)
			SD-CB-02-07	2/8/2001	0.8	x	x	x	x	x	(a)
			SD-CB-02-08	2/8/2001	0.9	x	x	x	x	x	(a)
			SD-CB-02-09	2/8/2001	0.9	x	x	x	x	x	(a)
			SD-CB-02-10	2/8/2001	1.2	x	x	x	x	x	(a)
CB-03	2	wetland	SD-CB-03-01	2/9/2001	0.7	x	x	x	x	x	(a)
			SD-CB-03-02	2/9/2001	1.0	x	x	x	x	x	(a)
			SD-CB-03-03	2/9/2001	1.2	x	x	x	x	x	(a)
			SD-CB-03-04	2/8/2001	1.0	x	x	x	x	x	(a)
			SD-CB-03-05	2/8/2001	0.7	x	x	x	x	x	(a)
			SD-CB-03-06	2/8/2001	0.3	x	x	x	x	x	(a)
			SD-CB-03-07	2/8/2001	0.7	x	x	x	x	x	(a)
			SD-CB-03-08	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-03-09	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-03-10	2/8/2001	0.5	x	x	x	x	x	(a)
			SD-CB-03-11	2/8/2001	0.3	x	x	x	x	x	(a)
			SD-CB-03-12	2/8/2001	0.7	x	x	x	x	x	(a)

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TABLE 4-32
APPLICABILITY OF SEDIMENT SAMPLES TO EXPOSURE SCENARIOS FOR INDICATOR SPECIES

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
CB-04	2	wetland	SD-CB-04-01	7/11/2002	< 1.0	x	x	x	x	x	(a)
			SD-CB-04-02	7/11/2002	0.0	x	x	x	x	x	(a)
			SD-CB-04-03	7/11/2002	0.0	x	x	x	x	x	(a)
			SD-CB-04-04	7/11/2002	0.0	x	x	x	x	x	(a)
			SD-CB-04-05	7/11/2002	< 1.0	x	x	x	x	x	(a)
			SD-CB-04-06	7/11/2002	0.0	x	x	x	x	x	(a)
			SD-CB-04-07	7/11/2002	0.0	x	x	x	x	x	(a)
			SD-CB-04-08	7/11/2002	< 1.0	x	x	x	x	x	(a)
			SD-CB-04-09	7/11/2002	< 1.0	x	x	x	x	x	(a)
			SD-CB-04-10	7/11/2002	< 1.0	x	x	x	x	x	(a)
CB-05	2	riparian	SO-CB-05-01	7/11/2002	0.0				x		(a)
			SO-CB-05-02	7/11/2002	0.0				x		(a)
			SO-CB-05-03	7/11/2002	0.0				x		(a)
			SO-CB-05-04	7/11/2002	0.0				x		(a)
			SO-CB-05-05	7/11/2002	0.0				x		(a)
			SO-CB-05-06	7/11/2002	0.0				x		(a)
			SO-CB-05-07	7/11/2002	0.0				x		(a)
			SO-CB-05-08	7/11/2002	0.0				x		(a)
			SO-CB-05-09	7/11/2002	0.0				x		(a)
			SO-CB-05-10	7/11/2002	0.0				x		(a)
CB-06	2	wetland	SD-CB-06-01	7/11/2002	< 0.5	x		x	x	x	(a)
			SD-CB-06-02	7/11/2002	< 1.0	x		x	x	x	(a)
			SD-CB-06-03	7/11/2002	< 1.0	x		x	x	x	(a)
			SD-CB-06-04	7/11/2002	< 1.0	x		x	x	x	(a)
			SD-CB-06-05	7/11/2002	0.0	x		x	x	x	(a)
			SD-CB-06-06	7/11/2002	< 1.0	x		x	x	x	(a)
			SD-CB-06-07	7/11/2002	< 0.5	x		x	x	x	(a)
			SD-CB-06-08	7/11/2002	< 1.0	x		x	x	x	(a)
			SD-CB-06-09	7/11/2002	< 0.5	x		x	x	x	(a)
			SD-CB-06-10	7/11/2002	0.0	x		x	x	x	(a)
DA	2	riparian	SO-DA-01	7/11/2002	0.0				x		(a)
			SO-DA-02	7/11/2002	0.0				x		(a)
			SO-DA-03	7/11/2002	0.0				x		(a)
			SO-DA-04	7/11/2002	0.0				x		(a)
			SO-DA-05	7/11/2002	0.0				x		(a)
NRSE	1	wetland	SD-NR-01	9/4/2002	0.1	x		x	x	x	(a)
			SD-NR-02	9/4/2002	0.1	x		x	x	x	(a)
			SD-NR-03	9/4/2002	0.0	x		x	x	x	(a)
			SD-NR-04	9/4/2002	0.0	x		x	x	x	(a)
			SD-NR-05	9/4/2002	0.1	x		x	x	x	(a)
JY	1	wetland	SD-JY-06	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-07	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-08	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-09	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-10	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-11	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-12	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-13	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-14	7/18/2002	0.0	x		x	x	x	(a)
			SD-JY-15	7/18/2002	0.0	x		x	x	x	(a)
NRSO	1	riparian	SO-NR-16	9/4/2002	0.0				x		(a)
			SO-NR-17	9/4/2002	0.0				x		(a)
			SO-NR-18	9/4/2002	0.0				x		(a)
			SO-NR-19	9/4/2002	0.0				x		(a)
			SO-NR-20	9/4/2002	0.0				x		(a)

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Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
KFSE	2	river	SD-KF-01	9/4/2002	0.3	x	x	x		x	(a)
			SD-KF-02	9/4/2002	0.3	x	x	x		x	(a)
			SD-KF-03	9/4/2002	0.3	x	x	x		x	(a)
			SD-KF-04	9/4/2002	0.2	x	x	x		x	(a)
			SD-KF-05	9/4/2002	0.3	x	x	x		x	(a)
			SD-KF-06	9/4/2002	0.5	x	x	x		x	(a)
			SD-KF-07	9/4/2002	0.0	x	x	x		x	(a)
			SD-KF-08	9/4/2002	0.2	x	x	x		x	(a)
			SD-KF-09	9/4/2002	0.8	x	x	x		x	(a)
			SD-KF-10	9/4/2002	0.3	x	x	x		x	(a)
KFSO	2	riparian	SO-KF-01	9/4/2002	0.0				x		(a)
			SO-KF-02	9/4/2002	0.0				x		(a)
			SO-KF-03	9/4/2002	0.0				x		(a)
			SO-KF-04	9/4/2002	0.0				x		(a)
			SO-KF-05	9/4/2002	0.0				x		(a)
			SO-KF-06	9/4/2002	0.0				x		(a)
			SO-KF-07	9/4/2002	0.0				x		(a)
			SO-KF-08	9/4/2002	0.0				x		(a)
			SO-KF-09	9/4/2002	0.0				x		(a)
			SO-KF-10	9/4/2002	0.0				x		(a)
LF	6	lake	SD-LF-01	7/17/2000	5.2					x	(a)
			SD-LF-02	7/17/2000	6.8					x	(a)
LM	6	lake	SD-LM-01	7/17/2000	75.0					x	(a)
			SD-LM-02	7/17/2000	37.0					x	(a)
			SD-LM-03	7/17/2000	52.0					x	(a)
LP	3	river	SD-LP-01	7/12/2002	1.5	x	x	x		x	(a)
			SD-LP-02	7/12/2002	1.0	x	x	x		x	(a)
			SD-LP-03	7/12/2002	1.5	x	x	x		x	(a)
			SD-LP-04	7/12/2002	1.0	x	x	x		x	(a)
			SD-LP-05	7/12/2002	2.0	x	x	x		x	(a)
			SD-LP-06	7/12/2002	1.0	x	x	x		x	(a)
			SD-LP-07	7/12/2002	1.5	x	x	x		x	(a)
			SD-LP-08	7/12/2002	2.0	x	x	x		x	(a)
			SD-LP-09	7/12/2002	0.0	x	x	x		x	(a)
			SD-LP-10	7/12/2002	0.3	x	x	x		x	(a)
			SD-LP-11	9/13/2002	0.1	x	x	x		x	(a)
			SD-LP-12	9/13/2002	0.0	x	x	x		x	(a)
			SD-LP-13	9/13/2002	0.0	x	x	x		x	(a)
			SD-LP-14	9/13/2002	0.0	x	x	x		x	(a)
			SD-LP-15	9/13/2002	0.0	x	x	x		x	(a)
MP	4	lake	SD-MP-01	7/10/2000	2.2			x		x	(a)
			SD-MP-02	7/10/2000	2.0			x		x	(a)
WSS	1	riparian	SO-SS-01	7/12/2002	0.0				x		(a)
			SO-SS-02	7/12/2002	0.0				x		(a)
			SO-SS-03	7/12/2002	0.0				x		(a)
			SO-SS-04	7/12/2002	0.0				x		(a)
			SO-SS-05	7/12/2002	0.0				x		(a)
TT-28	1	river	SD-TT-28-01	2/7/2001	1.0	x	x	x		x	(a)
			SD-TT-28-02	2/7/2001	1.0	x	x	x		x	(a)
			SD-TT-28-03	2/7/2001	1.0	x	x	x		x	(a)
TT-29	1	river	SD-TT-29-01	2/12/2001	2.0	x	x	x		x	(b)
			SD-TT-29-02	2/12/2001	1.5	x	x	x		x	(b)
			SD-TT-29-03	2/12/2001	1.5	x	x	x		x	(b)
			SD-TT-29-03-TR	6/19/2001	1.0	x	x	x		x	(b)
TT-30	2	river	SD-TT-30-01	2/12/2001	0.5	x	x	x		x	
			SD-TT-30-01-TR	6/22/2001	0.6	x	x	x		x	
			SD-TT-30-02	2/12/2001	0.5	x	x	x		x	
			SD-TT-30-03	2/12/2001	0.5	x	x	x		x	

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WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
TT-31	2	wetland	SD-TT-31-01	2/12/2001	0.3	x		x		x	(a)
			SD-TT-31-02	2/12/2001	0.8	x		x		x	(a)
			SD-TT-31-03	2/12/2001	0.5	x		x		x	(a)
TT-32	2	river	SD-TT-32-01	2/9/2001	0.8	x	x	x		x	(a)
			SD-TT-32-02	2/9/2001	0.5	x	x	x		x	(a)
			SD-TT-32-02-TR	6/20/2001	0.6	x	x	x		x	(a)
			SD-TT-32-03	2/9/2001	0.3	x	x	x		x	(a)
TT-33	2	river	SD-TT-33-01	2/8/2001	0.3	x	x	x		x	
			SD-TT-33-02	2/8/2001	0.5	x	x	x		x	
			SD-TT-33-02-TR	6/20/2001	0.5	x	x	x		x	
			SD-TT-33-03	2/8/2001	0.3	x	x	x		x	
UF	6	lake	SD-UF-01	7/18/2000	4.5	x				x	
			SD-UF-02	7/18/2000	5.6					x	
			SD-UF-02-TR	6/27/2001	7.1					x	
			SD-UF-03	7/18/2000	3.7	x				x	
UM	6	lake	SD-UM-01	7/17/2000	85.0					x	(a)
			SD-UM-02	7/17/2000	78.0					x	(a)
			SD-UM-03	7/17/2000	52.0					x	(a)
WG	1	wetland	SD-WG-01	7/13/2000	0.3	x		x	x	x	
			SD-WG-02	7/13/2000	0.2	x		x	x	x	
			SD-WG-03	7/13/2000	0.0	x		x	x	x	
			SD-WG-04	7/13/2000	0.0	x		x	x	x	
			SD-WG-05	7/13/2000	0.3	x		x	x	x	
			SD-WG-06	7/13/2000	0.3	x		x	x	x	
			SD-WG-07	7/13/2000	0.2	x		x	x	x	
			SD-WG-08	7/13/2000	0.2	x		x	x	x	
			SD-WG-09	7/13/2000	0.0	x		x	x	x	
			SD-WG-10	7/13/2000	0.2	x		x	x	x	
			SD-WG-11	7/13/2000	0.0	x		x	x	x	
			SD-WG-12	7/13/2000	0.2	x		x	x	x	
			SD-WG-13	7/13/2000	0.0	x		x	x	x	
			SD-WG-14	7/13/2000	0.0	x		x	x	x	
			SD-WG-15	7/13/2000	0.2	x		x	x	x	
			SD-WG-16	7/13/2000	0.0	x		x	x	x	
			SD-WG-17	7/13/2000	0.0	x		x	x	x	
			SD-WG-18	7/13/2000	0.0	x		x	x	x	
			SD-WG-19	7/13/2000	0.0	x		x	x	x	
			SD-WG-20	7/13/2000	0.0	x		x	x	x	
			SD-19-01-ME	11/19/1997	0.3	x		x	x	x	
WH	1	wetland	SD-WH-01	7/12/2000	0.2	x		x	x	x	
			SD-WH-02	7/12/2000	0.3	x		x	x	x	
			SD-WH-03	7/12/2000	0.2	x		x	x	x	
			SD-WH-04	7/12/2000	0.3	x		x	x	x	
			SD-WH-05	7/12/2000	0.2	x		x	x	x	
			SD-WH-06	7/12/2000	0.2	x		x	x	x	
			SD-WH-07	7/12/2000	0.1	x		x	x	x	
			SD-WH-07-TR	6/18/2001	1.2	x		x	x	x	
			SD-WH-08	7/12/2000	0.2	x		x	x	x	
			SD-WH-09	7/12/2000	0.3	x		x	x	x	
			SD-WH-10	7/12/2000	0.3	x		x	x	x	

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TABLE 4-32
APPLICABILITY OF SEDIMENT SAMPLES TO EXPOSURE SCENARIOS FOR INDICATOR SPECIES

WELLS G&H SUPERFUND SITE OU3

Station	Reach	Habitat	Sample ID	Date Sampled	Standing Water Depth (ft)	Applicability of Samples/Stations to Ecological Exposures[1]					Notes
						Muskrat	Heron	Mallard	Shrew	Invertebrates	
WS	1	river	SD-WS-01	7/11/2000	0.3	x	x	x	x	x	(a)
			SD-WS-02	7/11/2000	0.2	x	x	x	x	x	(a)
			SD-WS-03	7/11/2000	0.1	x	x	x	x	x	(a)
			SD-WS-04	7/11/2000	0.2	x	x	x	x	x	(a)
			SD-WS-05	7/11/2000	0.2	x	x	x	x	x	(a)
			SD-WS-06	7/11/2000	0.2	x	x	x	x	x	(a)
			SD-WS-07	7/11/2000	0.3	x	x	x	x	x	(a)
			SD-WS-08	7/11/2000	0.2	x	x	x	x	x	(a)
			SD-WS-09	7/11/2000	0.1	x	x	x	x	x	(a)
			SD-WS-10	7/11/2000	0.2	x	x	x	x	x	(a)
WW	1	wetland	SD-WW-01	11/28/2000		x		x		x	(c)
			SD-WW-02	11/28/2000		x		x		x	(c)
			SD-WW-03	11/28/2000		x		x		x	(c)
			SD-WW-04	11/28/2000		x		x		x	(c)
			SD-WW-05	11/28/2000		x		x		x	(c)
			SD-WW-06	11/28/2000		x		x		x	(c)
			SD-WW-06-TR	6/21/2001	0.8	x		x		x	(c)
			SD-WW-07	11/28/2000		x		x		x	(c)
			SD-WW-08	11/28/2000		x		x		x	(c)
			SD-WW-08	2/6/2001		x		x		x	(c)
			SD-WW-09	11/28/2000		x		x		x	(c)
			SD-WW-10	11/28/2000		x		x		x	(c)
			SD-WW-11	11/28/2000		x		x		x	(c)
			SD-WW-12	11/28/2000		x		x		x	(c)
REFERENCE											
01-IP		river	SD-MC-01	6/21/1999	0.3	x	x	x		x	
			SD-MC-01-TR	6/25/2001	0.3	x	x	x		x	
02-IP		pond	SD-MC-02	6/21/1999	2.0	x	x	x		x	
03-IP		pond	SD-MC-03	6/18/1999	9.2					x	
			SD-MC-03-TR	6/25/2001	13.0					x	
04-IP		river	SD-MC-04	6/17/1999	NA	x	x	x		x	
			SD-MC-04-TR	6/26/2001	0.4	x	x	x		x	
12-IP		river	SD-MC-12	6/17/1999	0.3	x	x	x		x	
23		river	SD-23-01-FW	8/30/1995	NA	x	x	x		x	
			SD-23-02-FW	8/30/1995	1.5	x	x	x		x	
			SD-23-03-FW	8/30/1995	1.0	x	x	x		x	
24		wetland	SD-24-01-FW	8/30/1995	0.7	x	x	x	x	x	
			SD-24-02-FW	8/30/1995	1.0	x	x	x	x	x	
			SD-24-03-FW	8/30/1995	NA	x	x	x	x	x	
			SD-24-03-ME	11/12/1997	1.0	x	x	x	x	x	
25		lake	SD-25-01-FW	9/11/1995	3.5	x	x	x		x	
			SD-25-02-FW	9/11/1995	4.0	x	x	x		x	
			SD-25-02-ME	11/18/1997	NA	x	x	x		x	
			SD-25-03-FW	9/11/1995	3.0	x	x	x		x	
26		lake	SD-26-01-FW	9/11/1995	3.0	x	x	x		x	
			SD-26-02-FW	9/11/1995	2.5	x	x	x		x	
			SD-26-03-FW	9/11/1995	2.5	x	x	x		x	
27		river	SD-27-01-FW	9/12/1995	2.5	x	x	x		x	
			SD-27-02-FW	9/12/1995	1.5	x	x	x		x	
			SD-27-03-FW	9/12/1995	1.5	x	x	x		x	
HB		wetland	SD-HB-00-TR	6/26/2001	0.8	x	x	x	x	x	
SA		wetland	SD-SA-01-TR	6/25/2001	0.7	x	x	x	x	x	

(a) Data includes Inorganics only
(b) Data includes Acetone and Inorganics only
(c) <1 ft water (most WW <6" water)

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TABLE 4-33
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 1
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 6	5	2.5	0.0	*1
Acetone						0 / 6	5	2.5	0.0	*1
cis-1,2-Dichloroethene	1		1.0		SW-11-01	1 / 6	1	0.58	0.75	2
Tetrachloroethene						0 / 6	1	0.5	0.0	*1
Trichloroethene						0 / 6	1	0.5	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 7	5	2.5	0.0	*1
Acenaphthylene						0 / 7	5	2.5	0.0	*1
Anthracene						0 / 7	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 7	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 7	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 7	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 7	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 7	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	NA	N/A
Chrysene						0 / 7	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 7	5	2.5	0.0	*1
Dibenzofuran						0 / 7	5	2.5	0.0	*1
Fluoranthene						0 / 7	5	2.5	0.0	*1
Fluorene						0 / 7	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 7	5	2.5	0.0	*1
Naphthalene						0 / 7	5	2.5	3.1	13
N-nitrosodiphenylamine						0 / 7	5	2.5	0.0	*1
Phenanthrene						0 / 7	5	2.5	0.0	*1
Pyrene						0 / 7	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 7	0.1	0.05	0.0	*1
4,4'-DDE						0 / 7	0.1	0.05	0.0	*1
4,4'-DDT						0 / 7	0.1	0.05	0.0	*1
Aldrin						0 / 7	0.05	0.025	0.0	*1
alpha-Chlordane	0.0021	J	0.0021	J	SW-12-01	1 / 7	0.05	0.022	0.0021	*13
Aroclor 1248						0 / 7	1.0	0.5	0.0	*1
Aroclor 1254						0 / 7	1.0	0.5	0.0	*1
Aroclor 1260						0 / 7	1.0	0.5	0.0	*1
beta-BHC						0 / 7	0.05	0.025	0.0	*1
delta-BHC						0 / 7	0.05	0.025	0.0	*1
Endosulfan I						0 / 7	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 7	0.1	0.05	0.0	*1
Endrin Aldehyde						0 / 7	0.1	0.05	0.0	*1
gamma-Chlordane	0.0014	J	0.0014	J	SW-11-01	1 / 7	0.05	0.022	0.0014	*15
Metals - ug/L										
Aluminum	37.9		2180		SW-10-01	5 / 7	31.1 - 36.9	386	2180	*4
Antimony	1.5		1.5		SW-10-01	1 / 7	1.1 - 1.2	0.7	0.95	2
Arsenic	11.6		77.1		SW-10-01	7 / 7	N/A	25	46	3
Barium	31.2		54.4		SW-10-01	7 / 7	N/A	37	43	3
Beryllium	0.18		0.18		SW-10-01	1 / 7	0.035 - 0.1	0.06	0.15	13
Cadmium	0.16		2.5		SW-10-01	2 / 7	0.1 - 0.15	0.4	2.5	*15
Chromium	2.2		146		SW-10-01	7 / 7	N/A	26	59	6
Cobalt	0.68999		4.8		SW-10-01	6 / 7	1.5	1.5	3.9	13
Copper	3.6		111		SW-10-01	7 / 7	N/A	22	71	3
Cyanide						0 / 7	5	2.5	0.0	*1
Iron	972		8470		SW-10-01	7 / 7	N/A	2401	6849	13
Lead	0.93999		75.9	J	SW-10-01	4 / 7	0.74 - 0.85	13	76	*4
Manganese	316		691		SW-10-01	7 / 7	N/A	470	579	2
Mercury	0.12		0.88		SW-10-01	3 / 7	0.08 - 0.095	0.20	0.61	3
Nickel	2		6.2		SW-10-01	7 / 7	N/A	2.8	3.9	2
Selenium						0 / 7	1.5 - 1.8	0.9	0.91	2
Silver						0 / 7	0.4 - 0.75	0.25	0.31	2
Thallium						0 / 7	1.5 - 1.7	0.78	0.81	2
Vanadium	0.4925	J	7.4		SW-10-01	7 / 7	N/A	1.9	6.1	5
Zinc	27.4	J	626	J	SW-10-01	7 / 7	N/A	128	626	*15

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-34
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 2
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 3	5	2.5	0.0	*1
Acetone						0 / 3	5	2.5	0.0	*1
cis-1,2-Dichloroethene	3		4.0		SW-16-01	2 / 3	1	2.50	4.0	*1
Tetrachloroethene						0 / 3	1	0.5	0.0	*1
Trichloroethene	2		2.0		SW-09-01	2 / 3	1	1.5	2.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 3	5	2.5	0.0	*1
Acenaphthylene						0 / 3	5	2.5	0.0	*1
Anthracene						0 / 3	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 3	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 3	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 3	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 3	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 3	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 3	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 3	5	2.5	0.0	*1
Dibenzofuran						0 / 3	5	2.5	0.0	*1
Fluoranthene						0 / 3	5	2.5	0.0	*1
Fluorene						0 / 3	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 3	5	2.5	0.0	*1
Naphthalene						0 / 3	5	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 3	5	2.5	0.0	*1
Phenanthrene						0 / 3	5	2.5	0.0	*1
Pyrene						0 / 3	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 3	0.1	0.05	0.0	*1
4,4'-DDE						0 / 3	0.1	0.05	0.0	*1
4,4'-DDT						0 / 3	0.1	0.05	0.0	*1
Aldrin						0 / 3	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 3	0.05	0.025	0.0	*1
Aroclor 1248						0 / 3	1.0	0.5	0.0	*1
Aroclor 1254						0 / 3	1.0	0.5	0.0	*1
Aroclor 1260						0 / 3	1.0	0.5	0.0	*1
beta-BHC						0 / 3	0.05	0.025	0.0	*1
delta-BHC						0 / 3	0.05	0.025	0.0	*1
Endosulfan I						0 / 3	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 3	0.1	0.05	0.0	*1
Endrin Aldehyde						0 / 3	0.1	0.05	0.0	*1
gamma-Chlordane						0 / 3	0.05	0.025	0.0	*1
Metals - ug/L										
Aluminum	40.2		325.5		SW-16-01	3 / 3	N/A	140	326	*1
Antimony						0 / 3	1.2	0.6	0.0	*1
Arsenic	6.8		19.75		SW-16-01	3 / 3	N/A	13	20	*1
Barium	29.2		35.75		SW-16-01	3 / 3	N/A	32	36	*1
Beryllium	0.043		0.043		SW-16-01	1 / 3	0.093 - 0.095	0.05	0.04	*1
Cadmium	0.23		0.23		SW-16-01	1 / 3	1.4 - 1.5	0.6	0.2	*1
Chromium	2.2		12.1		SW-16-01	3 / 3	N/A	6	12	*1
Cobalt	1.9		1.9		SW-16-01	1 / 3	0.61 - 1.5	1.0	1.9	*1
Copper	3.3		13.75		SW-16-01	3 / 3	N/A	7	14	*1
Cyanide						0 / 3	5	2.5	0.0	*1
Iron	693		1935		SW-16-01	3 / 3	N/A	1209	1935	*1
Lead	1.8		7.7	J	SW-16-01	2 / 3	0.85	3.3	7.7	*1
Manganese	356	J	777.5		SW-16-01	3 / 3	N/A	593	778	*1
Mercury	0.1475	J	0.1475	J	SW-16-01	1 / 3	0.2	0.12	0.15	*1
Nickel	1.3		2.2		SW-16-01	3 / 3	N/A	1.6	2.2	*1
Selenium						0 / 3	1.5	0.8	0.0	*1
Silver						0 / 3	0.75	0.38	0.0	*1
Thallium						0 / 3	1.7	0.85	0.0	*1
Vanadium	1.65		1.65		SW-16-01	1 / 3	1.1 - 1.2	0.9	1.7	*1
Zinc	37.7		91.75	J	SW-16-01	3 / 3	N/A	59	92	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-35
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 3
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 1	5	2.5	0.0	*1
Acetone						0 / 1	5	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 1	1	0.50	0.0	*1
Tetrachloroethene						0 / 1	1	0.5	0.0	*1
Trichloroethene						0 / 1	1	0.5	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 1	5	2.5	0.0	*1
Acenaphthylene						0 / 1	5	2.5	0.0	*1
Anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 1	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 1	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 1	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 1	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 1	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 1	5	2.5	0.0	*1
Dibenzofuran						0 / 1	5	2.5	0.0	*1
Fluoranthene						0 / 1	5	2.5	0.0	*1
Fluorene						0 / 1	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5	0.0	*1
Naphthalene						0 / 1	5	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 1	5	2.5	0.0	*1
Phenanthrene						0 / 1	5	2.5	0.0	*1
Pyrene						0 / 1	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 1	0.1	0.050	0.0	*1
4,4'-DDE						0 / 1	0.1	0.050	0.0	*1
4,4'-DDT						0 / 1	0.1	0.050	0.0	*1
Aldrin						0 / 1	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 1	0.05	0.025	0.0	*1
Aroclor 1248						0 / 1	1.0	0.50	0.0	*1
Aroclor 1254						0 / 1	1.0	0.50	0.0	*1
Aroclor 1260						0 / 1	1.0	0.50	0.0	*1
beta-BHC						0 / 1	0.05	0.025	0.0	*1
delta-BHC						0 / 1	0.05	0.025	0.0	*1
Endosulfan I						0 / 1	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 1	0.1	0.050	0.0	*1
Endrin Aldehyde						0 / 1	0.1	0.050	0.0	*1
gamma-Chlordane						0 / 1	0.05	0.025	0.0	*1
Metals - ug/L										
Aluminum	129		129		SW-07-01	1 / 1	N/A	129	129	*1
Antimony	1.3		1.3		SW-07-01	1 / 1	N/A	1.3	1.3	*1
Arsenic						0 / 1	13.9	7.0	0.0	*1
Barium	33.9		33.9		SW-07-01	1 / 1	N/A	34	34	*1
Beryllium						0 / 1	0.1	0.050	0.0	*1
Cadmium						0 / 1	0.1	0.050	0.0	*1
Chromium	3.1		3.1		SW-07-01	1 / 1	N/A	3.1	3.1	*1
Cobalt						0 / 1	0.96	0.48	0.0	*1
Copper	3.6		3.6		SW-07-01	1 / 1	N/A	3.6	3.6	*1
Cyanide						0 / 1	5	2.5	0.0	*1
Iron	1920		1920		SW-07-01	1 / 1	N/A	1920	1920	*1
Lead	4.3		4.3		SW-07-01	1 / 1	N/A	4.3	4.3	*1
Manganese	585		585		SW-07-01	1 / 1	N/A	585	585	*1
Mercury	0.22	J	0.22	J	SW-07-01	1 / 1	N/A	0.22	0.22	*1
Nickel	1.7		1.7		SW-07-01	1 / 1	N/A	1.7	1.7	*1
Selenium						0 / 1	1.5	0.75	0.0	*1
Silver						0 / 1	0.74	0.37	0.0	*1
Thallium						0 / 1	1.7	0.85	0.0	*1
Vanadium	1.9		1.9		SW-07-01	1 / 1	N/A	1.9	1.9	*1
Zinc	18.9		18.9		SW-07-01	1 / 1	N/A	19	19	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-36
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 4
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 1	5	2.5	0.0	*1
Acetone						0 / 1	5	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 1	1	0.50	0.0	*1
Tetrachloroethene						0 / 1	1	0.50	0.0	*1
Trichloroethene						0 / 1	1	0.50	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 1	5	2.5	0.0	*1
Acenaphthylene						0 / 1	5	2.5	0.0	*1
Anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 1	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 1	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 1	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 1	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 1	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 1	5	2.5	0.0	*1
Dibenzofuran						0 / 1	5	2.5	0.0	*1
Fluoranthene						0 / 1	5	2.5	0.0	*1
Fluorene						0 / 1	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5	0.0	*1
Naphthalene						0 / 1	5	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 1	5	2.5	0.0	*1
Phenanthrene						0 / 1	5	2.5	0.0	*1
Pyrene						0 / 1	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 1	0.1	0.050	0.0	*1
4,4'-DDE						0 / 1	0.1	0.050	0.0	*1
4,4'-DDT						0 / 1	0.1	0.050	0.0	*1
Aldrin						0 / 1	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 1	0.05	0.025	0.0	*1
Aroclor 1248						0 / 1	1.0	0.50	0.0	*1
Aroclor 1254						0 / 1	1.0	0.50	0.0	*1
Aroclor 1260						0 / 1	1.0	0.50	0.0	*1
beta-BHC						0 / 1	0.05	0.025	0.0	*1
delta-BHC						0 / 1	0.05	0.025	0.0	*1
Endosulfan I						0 / 1	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 1	0.1	0.050	0.0	*1
Endrin Aldehyde						0 / 1	0.1	0.050	0.0	*1
gamma-Chlordane						0 / 1	0.05	0.025	0.0	*1
Metals - ug/L										
Aluminum	199		199		SW-06-01	1 / 1	N/A	199	199	*1
Antimony						0 / 1	1.2	0.60	0.0	*1
Arsenic						0 / 1	6.5	3.3	0.0	*1
Barium	32		32		SW-06-01	1 / 1	N/A	32	32	*1
Beryllium						0 / 1	0.097	0.049	0.0	*1
Cadmium						0 / 1	0.1	0.050	0.0	*1
Chromium	4.3		4.3		SW-06-01	1 / 1	N/A	4.3	4.3	*1
Cobalt						0 / 1	0.88	0.44	0.0	*1
Copper	5.2		5.2		SW-06-01	1 / 1	N/A	5.2	5.2	*1
Cyanide						0 / 1	5	2.5	0.0	*1
Iron	1180		1180		SW-06-01	1 / 1	N/A	1180	1180	*1
Lead	5.7		5.7		SW-06-01	1 / 1	N/A	5.7	5.7	*1
Manganese	504		504		SW-06-01	1 / 1	N/A	504	504	*1
Mercury						0 / 1	0.2	0.10	0.0	*1
Nickel	1.9		1.9		SW-06-01	1 / 1	N/A	1.9	1.9	*1
Selenium						0 / 1	1.5	0.75	0.0	*1
Silver						0 / 1	0.75	0.38	0.0	*1
Thallium						0 / 1	1.7	0.85	0.0	*1
Vanadium	1.5		1.5		SW-06-01	1 / 1	N/A	1.5	1.5	*1
Zinc	29.8		29.8		SW-06-01	1 / 1	N/A	30	30	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-37
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 5
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 1	5	2.5	0.0	*1
Acetone						0 / 1	5	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 1	1	0.50	0.0	*1
Tetrachloroethene	2		2		SW-05-01	1 / 1	N/A	2.0	2.0	*1
Trichloroethene						0 / 1	1	0.50	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 1	5	2.5	0.0	*1
Acenaphthylene						0 / 1	5	2.5	0.0	*1
Anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 1	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 1	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 1	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 1	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 1	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 1	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 1	5	2.5	0.0	*1
Dibenzofuran						0 / 1	5	2.5	0.0	*1
Fluoranthene						0 / 1	5	2.5	0.0	*1
Fluorene						0 / 1	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 1	5	2.5	0.0	*1
Naphthalene						0 / 1	5	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 1	5	2.5	0.0	*1
Phenanthrene						0 / 1	5	2.5	0.0	*1
Pyrene						0 / 1	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 1	0.1	0.050	0.0	*1
4,4'-DDE						0 / 1	0.1	0.050	0.0	*1
4,4'-DDT						0 / 1	0.1	0.050	0.0	*1
Aldrin						0 / 1	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 1	0.05	0.025	0.0	*1
Aroclor 1248						0 / 1	1.0	0.50	0.0	*1
Aroclor 1254						0 / 1	1.0	0.50	0.0	*1
Aroclor 1260						0 / 1	1.0	0.50	0.0	*1
beta-BHC						0 / 1	0.05	0.025	0.0	*1
delta-BHC						0 / 1	0.05	0.025	0.0	*1
Endosulfan I						0 / 1	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 1	0.1	0.050	0.0	*1
Endrin Aldehyde						0 / 1	0.1	0.050	0.0	*1
gamma-Chlordane						0 / 1	0.05	0.025	0.0	*1
Metals - ug/L										
Aluminum	27.3		27.3		SW-05-01	1 / 1	N/A	27	27	*1
Antimony						0 / 1	1.2	0.60	0.0	*1
Arsenic						0 / 1	3.4	1.7	0.0	*1
Barium	50.3		50.3		SW-05-01	1 / 1	N/A	50	50	*1
Beryllium						0 / 1	0.059	0.030	0.0	*1
Cadmium						0 / 1	0.1	0.050	0.0	*1
Chromium	0.85		0.85		SW-05-01	1 / 1	N/A	0.85	0.85	*1
Cobalt						0 / 1	0.4	0.20	0.0	*1
Copper	1.7		1.7		SW-05-01	1 / 1	N/A	1.7	1.7	*1
Cyanide						0 / 1	5	2.5	0.0	*1
Iron	376		376		SW-05-01	1 / 1	N/A	376	376	*1
Lead						0 / 1	0.84	0.42	0.0	*1
Manganese	320		320		SW-05-01	1 / 1	N/A	320	320	*1
Mercury						0 / 1	0.2	0.10	0.0	*1
Nickel	1.3		1.3		SW-05-01	1 / 1	N/A	1.3	1.3	*1
Selenium						0 / 1	1.5	0.75	0.0	*1
Silver						0 / 1	0.74	0.37	0.0	*1
Thallium						0 / 1	1.7	0.85	0.0	*1
Vanadium	0.68		0.68		SW-05-01	1 / 1	N/A	0.68	0.68	*1
Zinc	10.8		10.8		SW-05-01	1 / 1	N/A	11	11	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-38
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT REACH 6
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 4	5	2.5	0.0	*1
Acetone						0 / 4	5	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 4	1	0.50	0.0	*1
Tetrachloroethene						0 / 4	1	0.5	0.0	*1
Trichloroethene						0 / 4	1	0.5	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 4	5	2.5	0.0	*1
Acenaphthylene						0 / 4	5	2.5	0.0	*1
Anthracene						0 / 4	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 4	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 4	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 4	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 4	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 4	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 4	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 4	5	2.5	0.0	*1
Dibenzofuran						0 / 4	5	2.5	0.0	*1
Fluoranthene						0 / 4	5	2.5	0.0	*1
Fluorene						0 / 4	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 4	5	2.5	0.0	*1
Naphthalene						0 / 4	5	2.5	4.2	13
N-nitrosodiphenylamine						0 / 4	5	2.5	0.0	*1
Phenanthrene						0 / 4	5	2.5	0.0	*1
Pyrene						0 / 4	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 4	0.1	0.050	0.0	*1
4,4'-DDE						0 / 4	0.1	0.050	0.0	*1
4,4'-DDT						0 / 4	0.1	0.050	0.0	*1
Aldrin						0 / 4	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 4	0.05	0.025	0.0	*1
Aroclor 1248						0 / 4	1.0	0.50	0.0	*1
Aroclor 1254						0 / 4	1.0	0.50	0.0	*1
Aroclor 1260						0 / 4	1.0	0.50	0.0	*1
beta-BHC						0 / 4	0.05	0.025	0.0	*1
delta-BHC						0 / 4	0.05	0.025	0.0	*1
Endosulfan I						0 / 4	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 4	0.1	0.050	0.0	*1
Endrin Aldehyde						0 / 4	0.1	0.050	0.0	*1
gamma-Chlordane						0 / 4	0.05	0.025	0.0	*1
Metals - ug/L										
Aluminum	47.7		426		SW-01-01	4 / 4	N/A	206	426	*2
Antimony						0 / 4	1.2	0.60	0.0	*1
Arsenic	2.8		5.2		SW-03-01	3 / 4	6.5	3.6	4.9	2
Barium	29.6		44.4		SW-04-01	4 / 4	N/A	38	44	*2
Beryllium	0.11		0.11		SW-04-01	1 / 4	0.035	0.041	0.11	*13
Cadmium						0 / 4	0.099 - 0.1	0.050	0.0	2
Chromium	0.72		3.7		SW-03-01	4 / 4	N/A	1.7	3.3	2
Cobalt	0.43		0.43		SW-01-01	1 / 4	0.4	0.26	0.39	2
Copper	2.2		6.8		SW-01-01	4 / 4	N/A	4.4	6.8	*2
Cyanide						0 / 4	5	2.5	0.0	*1
Iron	304		1080		SW-03-01	4 / 4	N/A	658	1041	2
Lead	1.7		7.5	J	SW-03-01	3 / 4	0.85	3.4	7.1	2
Manganese	70.9		317		SW-04-01	4 / 4	N/A	177	311	2
Mercury	0.04	J	0.069	J	SW-03-01	3 / 4	0.2	0.068	0.069	*2
Nickel	0.89		2		SW-01-01	4 / 4	N/A	1.4	1.9	2
Selenium						0 / 4	1.5	0.75	0.0	*1
Silver						0 / 4	0.74 - 0.75	0.37	0.38	3
Thallium						0 / 4	1.7	0.85	0.0	*1
Vanadium	0.58		1.3		SW-01-01	3 / 4	0.55	0.86	1.3	*2
Zinc	12.4		45.5		SW-01-01	3 / 4	4	22	45	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-39
COPCs IN CRAYFISH TISSUE BY REACH

WELLS G&H SUPERFUND SITE OU3

COPCs	REACH 1		REACH 2[1]	REACH 3[1]	REACH 5[1]
	Average Concentration	Maximum Detected Concentration[2]	Average Concentration	Average Concentration	Average Concentration
Pesticides/PCBs (*u* g/kg-wet weight)					
4,4'-DDD	0.6	0.0	3.3	3.3	1.6
4,4'-DDE	1.0	0.0	8.0	5.8	4.6
4,4'-DDT	1.1	1.3	1.1	1.4	0.7
Aldrin	0.3	0.3	0.3	0.3	0.4
alpha -Chlordane	0.6	0.0	0.6	1.4	0.6
Aroclor-1248	2.5	0.0	2.5	2.5	3.6
Aroclor-1254	19.5	24.0	22.0	9.5	14.0
Aroclor-1260	21.5	28.0	41.0	23.7	10.6
beta -BHC	0.3	0.0	0.3	0.3	0.4
delta -BHC	0.3	0.0	0.3	0.3	0.4
Endosulfan I	0.6	0.0	0.3	0.3	0.5
Endosulfan sulfate	0.9	1.4	0.7	0.7	0.7
Endrin aldehyde	2.2	2.9	3.0	1.4	1.8
gamma -Chlordane	0.3	0.0	0.3	0.6	0.4
Inorganics (mg/kg-wet weight)					
Aluminum	47.9	49.1	52.7	58.3	23.9
Antimony	0.05	0.0	0.1	0.05	0.0
Arsenic	3.8	4.4	2.7	1.5	0.2
Barium	8.8	0.0	10.0	14.0	2.0
Beryllium	0.0	0.0	0.0	0.0	0.0
Cadmium	0.1	0.1	0.1	0.0	0.1
Chromium	0.9	1.0	2.2	0.9	0.2
Cobalt	0.5	0.6	0.5	0.4	0.3
Copper	54.4	59.6	62.3	41.2	40.6
Cyanide	0.3	0.0	0.2	0.2	0.2
Iron	578	645	343	277	88.3
Lead	0.5	0.6	1.0	1.0	0.2
Manganese	88.7	112.0	120.0	98.3	79.1
Mercury	0.01	0.00	0.01	0.01	0.01
Nickel	0.07	0.00	0.10	0.10	0.04
Selenium	0.3	0.4	0.4	0.4	0.5
Silver	0.04	0.1	0.02	0.03	0.06
Thallium	0.1	0.0	0.1	0.1	0.1
Vanadium	0.1	0.0	0.2	0.2	0.0
Zinc	28.8	29.1	27.8	23.9	18.4

[1] For Reaches 2, 3, and 5, maximums were used for select metals only (Appendix E.1-143)

[2] Maximum detected concentrations were used since there were too few samples available to calculate 95% UCLs. Zero values represent compounds that were not detected.

TABLE 4-40
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT FOR SITE-WIDE HERON LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	39	J	290	J	SD-19-01-FW	12 / 47	11 - 35	39	132	15
Acetone	94	J	7300	J	SD-TT-30-01-TR	15 / 52	12 - 430	344	1348	14
cis-1,2-Dichloroethene	7	J	562	J	SD-20-01-ME	12 / 18	9 - 225	96	199	6
Tetrachloroethene	41	J	41	J	SD-15-03-FW	1 / 55	11 - 790	36	41	*14
Trichloroethene	6	J	2025	J	SD-20-01-ME	11 / 56	9 - 114	55	280	14
SVOCs - ug/Kg										
2-Methylnaphthalene	10	J	220	J	SD-09-06-FW	17 / 59	1 - 2700	204	220	*14
Acenaphthylene	6	J	480	J	SD-07-10-FW	22 / 59	1 - 2700	199	361	14
Anthracene	26	J	1100	J	SD-07-09-FW	29 / 60	67 - 910	263	397	13
Benzo(a)anthracene	40	J	9600		SD-07-10-ME	54 / 70	67 - 890	883	2122	14
Benzo(a)pyrene	33	J	10000		SD-07-10-ME	55 / 70	67 - 910	917	1198	5
Benzo(b)fluoranthene	45	J	16000	J	SD-07-10-ME	62 / 76	67 - 840	1525	2110	5
Benzo(g,h,i)perylene	44	J	5300		SD-07-10-ME	37 / 64	67 - 910	549	999	13
Benzo(k)fluoranthene	45	J	14000	J	SD-07-05-FW	54 / 70	67 - 840	1096	2812	14
Carbazole	63	J	680	J	SD-07-09-FW	11 / 45	130 - 910	245	329	13
Chrysene	40	J	10000		SD-07-10-ME	56 / 71	67 - 890	1106	1419	5
Dibenz(a,h)anthracene	60	J	2000		SD-07-10-ME	26 / 61	2 - 910	270	433	13
Dibenzofuran	56	J	500		SD-09-06-FW	4 / 43	130 - 2700	263	395	13
Fluoranthene	42	J	23000		SD-07-10-ME	66 / 76	67 - 890	1900	4654	14
Fluorene	36	J	810		SD-09-06-FW	28 / 60	1 - 910	222	309	13
Indeno(1,2,3-cd)pyrene	21	J	6900		SD-07-10-ME	44 / 67	67 - 910	592	1364	14
Naphthalene	14	J	2500	J	SD-21-02-FW	23 / 60	1 - 2700	256	561	14
N-nitrosodiphenylamine	58	J	560	J	SD-10-01-FW	7 / 46	130 - 2700	281	409	13
Phenanthrene	62	J	12000		SD-07-10-ME	49 / 67	67 - 890	924	2290	14
Pyrene	52	J	15000		SD-07-10-ME	66 / 75	67 - 600	1536	3522	14
PCBs/Pesticides - ug/Kg										
4,4'-DDD	0.46	J	310		SD-13-03-ME	53 / 72	0.31 - 21	27	64	14
4,4'-DDE	0.089	J	160	J	SD-10-01-ME	64 / 75	0.31 - 21	17	34	5
4,4'-DDT	0.29	J	47		SD-07-10-FW	48 / 67	0.31 - 21	5.5	13	14
Aldrin	0.12	J	18	J	SD-10-01-ME	18 / 59	0.16 - 11	1.4	3.4	14
alpha-Chlordane	0.28	J	93		SD-13-03-ME	50 / 73	0.16 - 11	12	26	14
Aroclor 1248	15	J	560	J	SD-10-01-ME	16 / 56	3.1 - 210	55	104	13
Aroclor 1254	45		45		SD-13-01-TR	1 / 56	3.1 - 210	22	39	14
Aroclor 1260	17	J	420		SD-21-01-ME	19 / 58	3.1 - 210	63	111	13
beta-BHC	0.1	J	6.6		SD-07-07-FW	17 / 64	0.16 - 11	1.4	2.5	14
delta-BHC	0.08	J	24	J	SD-07-05-ME	13 / 58	0.16 - 11	1.9	5.0	14
Endosulfan I	0.11	J	68	J	SD-21-01-FW	15 / 66	0.16 - 11	4.8	15	14
Endosulfan Sulfate	0.38	J	2.1	J	SD-07-05-FW	4 / 57	0.31 - 21	2.3	2.1	*13
Endrin Aldehyde	0.47	J	11.7	J	SD-10-01-ME	23 / 60	0.31 - 21	3.0	4.4	13
gamma-Chlordane	0.12	J	650	J	SD-13-03-ME	52 / 71	0.16 - 11	16	73	14
Metals - mg/Kg										
Aluminum	1865		34400	J	SD-13-02-FW	183 / 183	3.3362 - 9.14	10223	11277	5
Antimony	0.41	J	117	J	SD-12-03-ME	124 / 177	0.26 - 3.5	5.6	11	14
Arsenic	3.1		4550		SD-12-03-ME	183 / 183	0.22 - 1	351	522	5
Barium	6		389		SD-CB-02-07	181 / 183	0.018 - 16.3	63	69	3
Beryllium	0.12		2.3		SD-18-03-ME	157 / 179	0.016 - 0.49	0.68	0.75	3
Cadmium	0.089		37.4	J	SD-15-01-FW	155 / 183	0.0048 - 5.7	6.4	7.4	3
Chromium	3.3	J	5590	J	SD-21-01-ME	183 / 183	0.055 - 1	617	1081	14
Cobalt	0.79		130	J	SD-CB-03-06	183 / 183	0.3336 - 0.88	16	18	5
Copper	4.2	J	3760	J	SD-TT-30-03	183 / 183	0.082 - 0.4716	415	673	14
Cyanide	0.85	J	12.1	J	SD-WS-08	14 / 50	0.1443 - 2	1.2	2.4	13
Iron	3960		258000		SD-19-01-TR	183 / 183	0.57 - 3.4992	29403	40710	13
Lead	1.9	J	1270	J	SD-13-01-FW	183 / 183	0.2002 - 0.62	272	310	3
Manganese	34.5	J	2640	J	SD-09-10-FW	183 / 183	0.018 - 0.4716	485	603	5
Mercury	0.058	J	89.2	J	SD-TT-30-03	164 / 180	0.0037 - 0.3418	3.0	5.0	5
Nickel	0.59	J	177		SD-CB-04-03	179 / 183	0.15 - 5.3	19	23	5
Selenium	0.53	J	30.3		SD-12-03-ME	113 / 179	0.053 - 2.9	3.3	5.4	14
Silver	0.21	J	11.5		SD-CB-04-02	50 / 152	0.0094 - 2	0.61	1.2	14
Thallium	0.425	J	18.1	J	SD-BW-03	63 / 165	0.038 - 2.2	1.4	2.5	14
Vanadium	4.2		127		SD-12-03-ME	183 / 183	0.073 - 0.64	39	48	13
Zinc	15.2		8750		SD-CB-04-03	183 / 183	0.16 - 1.7	1236	1412	3
Total Combustible Organics (mg/Kg)	1390		912000	J	SD-12-01-ME	53 / 56	117 - 2000	216509	474382	15
Total Organic Carbon (mg/Kg)	602		680000		SD-10-02-TR	56 / 62	114 - 18500	103203	148509	4

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-41
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER SITE-WIDE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 16	5	2.5	0.0	*1
Acetone						0 / 16	5	2.5	0.0	*1
cis-1,2-Dichloroethene	1.0		4.0		SW-16-01	3 / 16	1	0.91	2.0	13
Tetrachloroethene	2.0		2.0		SW-05-01	1 / 16	1	0.6	0.76	2
Trichloroethene	2.0		2.0		SW-09-01	2 / 16	1	0.7	0.91	2
SVOCs - ug/L										
2-Methylnaphthalene						0 / 17	5	2.5	0.0	*1
Acenaphthylene						0 / 17	5	2.5	0.0	*1
Anthracene						0 / 17	5	2.5	0.0	*1
Benzo(a)anthracene						0 / 17	5	2.5	0.0	*1
Benzo(a)pyrene						0 / 17	5	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 17	5	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 17	5	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 17	5	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	NA	N/A
Chrysene						0 / 17	5	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 17	5	2.5	0.0	*1
Dibenzofuran						0 / 17	5	2.5	0.0	*1
Fluoranthene						0 / 17	5	2.5	0.0	*1
Fluorene						0 / 17	5	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 17	5	2.5	0.0	*1
Naphthalene						0 / 17	5	2.5	2.6	13
N-nitrosodiphenylamine						0 / 17	5	2.5	0.0	*1
Phenanthrene						0 / 17	5	2.5	0.0	*1
Pyrene						0 / 17	5	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 17	0.10	0.05	0.0	*1
4,4'-DDE						0 / 17	0.10	0.05	0.0	*1
4,4'-DDT						0 / 17	0.10	0.05	0.0	*1
Aldrin						0 / 17	0.05	0.025	0.0	*1
alpha-Chlordane	0.0021	J	0.0021	J	SW-12-01	1 / 17	0.05	0.024	0.0021	*13
Aroclor 1248						0 / 17	1.0	0.5	0.0	*1
Aroclor 1254						0 / 17	1.0	0.5	0.0	*1
Aroclor 1260						0 / 17	1.0	0.5	0.0	*1
beta-BHC						0 / 17	0.05	0.025	0.0	*1
delta-BHC						0 / 17	0.05	0.025	0.0	*1
Endosulfan I						0 / 17	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 17	0.1	0.05	0.0	*1
Endrin Aldehyde						0 / 17	0.1	0.05	0.0	*1
gamma-Chlordane	0.0014	J	0.0014	J	SW-11-01	1 / 17	0.05	0.024	0.0014	*13
Metals - ug/L										
Aluminum	27.3		2180		SW-10-01	15 / 17	31.1 - 36.9	253	471	3
Antimony	1.3		1.5		SW-10-01	2 / 17	1.1 - 1.2	0.7	0.80	2
Arsenic	2.8		77.1		SW-10-01	13 / 17	3.4 - 13.9	14	22	3
Barium	29.2		54.4		SW-10-01	17 / 17	N/A	37	40	2
Beryllium	0.043		0.18		SW-10-01	3 / 17	0.035 - 0.1	0.05	0.093	13
Cadmium	0.16		2.5		SW-10-01	3 / 17	0.099 - 1.5	0.3	1.8	15
Chromium	0.72		146		SW-10-01	17 / 17	N/A	13	20	6
Cobalt	0.43		4.8		SW-10-01	8 / 17	0.4 - 1.5	0.9	1.4	3
Copper	1.7		111		SW-10-01	17 / 17	N/A	12	39	13
Cyanide						0 / 17	5	2.5	0.0	*1
Iron	304		8470		SW-10-01	17 / 17	N/A	1561	2326	5
Lead	0.93999		75.9	J	SW-10-01	11 / 17	0.74 - 0.85	7.4	16	4
Manganese	70.9		777.5		SW-16-01	17 / 17	N/A	422	508	2
Mercury	0.04	J	0.88		SW-10-01	8 / 17	0.08 - 0.2	0.15	0.36	13
Nickel	0.89		6.2		SW-10-01	17 / 17	N/A	2.1	2.6	2
Selenium						0 / 17	1.5 - 1.8	0.79	0.82	2
Silver						0 / 17	0.4 - 0.75	0.32	0.36	2
Thallium						0 / 17	1.5 - 1.7	0.82	0.84	2
Vanadium	0.4925	J	7.4		SW-10-01	14 / 17	0.55 - 1.2	1.4	2.0	3
Zinc	10.8		626	J	SW-10-01	16 / 17	4	72	420	15

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-42
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT ALL REFERENCE LOCATIONS EXCEPT STATION SD-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	17.5	J	680		SD-MC-02	3 / 21	10 - 46	51	381	15
Acetone	23	J	2200	J	SD-MC-02	10 / 22	10 - 220	174	331	6
cis-1,2-Dichloroethene						0 / 9	10 - 46	9.9	12	2
Tetrachloroethene						0 / 23	10 - 69	10	12	2
Trichloroethene						0 / 23	10 - 46	8.4	9.5	2
SVOCs - ug/Kg										
2-Methylnaphthalene	22	J	360	J	SD-24-02-FW	5 / 24	67 - 3100	267	360	*13
Acenaphthylene	22	J	800	J	SD-24-02-FW	9 / 24	67 - 3100	305	582	13
Anthracene	48	J	1900	J	SD-24-02-FW	12 / 24	67 - 3100	414	590	5
Benzo(a)anthracene	110	J	5900		SD-24-02-FW	17 / 24	67 - 1000	1152	2264	6
Benzo(a)pyrene	130	J	5500		SD-24-02-FW	17 / 24	67 - 1000	1065	1975	6
Benzo(b)fluoranthene	150	J	10000		SD-24-02-FW	21 / 24	67 - 1000	1450	2232	3
Benzo(g,h,i)perylene	190	J	2200	J	SD-25-02-FW	10 / 24	67 - 1000	475	910	13
Benzo(k)fluoranthene	400		9600		SD-24-02-FW	15 / 24	67 - 1000	1397	2685	6
Carbazole	48	J	990	J	SD-24-02-FW	7 / 22	230 - 3100	332	455	5
Chrysene	140	J	7300		SD-24-02-FW	17 / 24	67 - 1000	1314	2610	6
Dibenz(a,h)anthracene	110	J	1100	J	SD-25-02-FW	10 / 24	67 - 1000	283	462	13
Dibenzofuran	120	J	1000	J	SD-24-02-FW	4 / 22	230 - 3100	323	629	13
Fluoranthene	71	J	15000		SD-24-02-FW	22 / 24	67 - 1000	2484	4003	3
Fluorene	44	J	2800		SD-24-02-FW	10 / 24	67 - 3100	394	920	13
Indeno(1,2,3-cd)pyrene	160	J	3700	J	SD-25-02-FW	13 / 24	67 - 1000	634	1348	13
Naphthalene	23	J	520	J	SD-24-02-FW	5 / 24	67 - 3100	280	520	*13
N-nitrosodiphenylamine						0 / 22	230 - 3100	332	640	13
Phenanthrene	170	J	12000		SD-24-02-FW	17 / 24	67 - 1000	1517	2347	3
Pyrene	81	J	11000		SD-24-02-FW	17 / 24	67 - 1000	1976	3098	3
PCBs/Pesticides - ug/Kg										
4,4'-DDD	4.5		390		SD-24-03-ME	18 / 24	0.32 - 31	48	109	6
4,4'-DDE	3.5	J	470	J	SD-MC-01	17 / 24	0.32 - 31	31	55	6
4,4'-DDT	2.1	J	180	J	SD-MC-01	15 / 24	0.32 - 30	23	39	3
Aldrin	0.29	J	1.6	J	SD-24-02-FW	3 / 24	0.16 - 16	2.9	1.6	*15
alpha-Chlordane	1.3	J	23	J	SD-MC-01	5 / 24	0.16 - 15	4.2	6.2	3
Aroclor 1248	56	J	290	J	SD-24-03-ME	2 / 24	3 - 310	70	110	3
Aroclor 1254						0 / 24	3 - 310	55	174	15
Aroclor 1260	47		200		SD-24-03-ME	2 / 24	3 - 310	66	193	15
beta-BHC	0.4	J	0.75	J	SD-23-01-FW	2 / 24	0.16 - 16	2.9	0.75	*15
delta-BHC						0 / 24	0.16 - 16	2.9	8.7	15
Endosulfan I	0.22	J	66	J	SD-25-02-FW	8 / 24	0.16 - 14	6.8	17	6
Endosulfan Sulfate	6.6		11	J	SD-25-02-FW	3 / 24	0.32 - 30	5.6	8.5	3
Endrin Aldehyde	1.1	J	5.9	J	SD-24-03-ME	3 / 20	0.32 - 31	7.1	5.9	*13
gamma-Chlordane	0.31	J	4.6		SD-24-03-FW	6 / 24	0.16 - 16	3.1	4.6	*15
Metals - mg/Kg										
Aluminum	1100		14300		SD-SA-01-TR	25 / 25	3.4 - 9.14	7852	9111	2
Antimony	0.5	J	5.6		SD-MC-04-TR	18 / 25	0.062 - 1.4	1.0	1.3	3
Arsenic	2.5		44.5		SD-MC-04-TR	25 / 25	0.21 - 1	16	25	5
Barium	5.7		173		SD-MC-04-TR	25 / 25	0.018 - 0.4	52	67	3
Beryllium	0.15		1.2		SD-24-03-FW	22 / 25	0.027 - 0.22	0.51	0.63	2
Cadmium	0.08699		6.1		SD-MC-04	18 / 25	0.0044 - 0.6	1.2	2.0	3
Chromium	8.9		512		SD-MC-04-TR	25 / 25	0.053 - 1	91	370	15
Cobalt	0.76		21.8	J	SD-MC-04-TR	25 / 25	0.36 - 0.37	7.9	10	3
Copper	1.9		344		SD-MC-04-TR	25 / 25	0.08 - 0.44	60	91	3
Cyanide						0 / 14	0.52 - 1.4	0.39	0.45	2
Iron	2040		51600		SD-MC-04-TR	25 / 25	0.55 - 1.4	15733	20054	3
Lead	5.6	J	755	J	SD-25-02-FW	25 / 25	0.26 - 0.6	193	297	3
Manganese	12.6	J	1980		SD-MC-04-TR	25 / 25	0.018 - 0.24	366	679	5
Mercury	0.021	J	0.71		SD-24-03-ME	17 / 24	0.005 - 0.08	0.19	0.32	3
Nickel	1.1		27.3		SD-HB-00-TR	25 / 25	0.14 - 0.8	14	17	2
Selenium	0.91	J	3.2	J	SD-25-02-FW	8 / 25	0.049 - 1.1	0.82	1.5	13
Silver	0.085	J	2.9		SD-24-03-FW	7 / 24	0.0088 - 1	0.48	1.1	13
Thallium	1		2.2		SD-25-02-FW	2 / 24	0.038 - 2	0.51	0.66	3
Vanadium	2.5		148		SD-24-03-FW	25 / 25	0.071 - 0.64	33	45	3
Zinc	10.4	J	611	J	SD-MC-04-TR	25 / 25	0.16 - 1.7	167	240	3
Total Combustible Organics (mg/Kg)	2810		427000		SD-23-03-FW	8 / 8	2000	109001	344650	3
Total Organic Carbon (mg/Kg)	7650		370000	J	SD-MC-02	17 / 17	250	119018	200173	3

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-43
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER -REFERENCE EXCEPT STATION SW-03-IP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 9	2 - 5	1.8	2.1	2
Acetone						0 / 9	5	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 9	1 - 2	0.72	0.92	2
Tetrachloroethene						0 / 9	1 - 2	0.72	0.92	2
Trichloroethene						0 / 9	1 - 2	0.72	0.92	2
SVOCs - ug/L										
2-Methylnaphthalene						0 / 9	4 - 5	2.4	2.5	2
Acenaphthylene						0 / 9	4 - 5	2.4	2.5	2
Anthracene						0 / 9	4 - 5	2.4	2.5	2
Benzo(a)anthracene						0 / 9	4 - 5	2.4	2.5	2
Benzo(a)pyrene						0 / 9	4 - 5	2.4	2.5	2
Benzo(b)fluoranthene						0 / 9	4 - 5	2.4	2.5	2
Benzo(g,h,i)perylene						0 / 9	4 - 5	2.4	2.5	2
Benzo(k)fluoranthene						0 / 9	4 - 5	2.4	2.5	2
Carbazole						0 / 4	4 - 5	2.3	2.4	2
Chrysene						0 / 9	4 - 5	2.4	2.5	2
Dibenz(a,h)anthracene						0 / 9	4 - 5	2.4	2.5	2
Dibenzofuran						0 / 9	4 - 5	2.4	2.5	2
Fluoranthene						0 / 9	4 - 5	2.4	2.5	2
Fluorene						0 / 9	4 - 5	2.4	2.5	2
Indeno(1,2,3-cd)pyrene						0 / 9	4 - 5	2.4	2.5	2
Naphthalene						0 / 9	4 - 5	2.4	2.9	13
N-nitrosodiphenylamine						0 / 9	4 - 5	2.4	2.5	2
Phenanthrene						0 / 9	4 - 5	2.4	2.5	2
Pyrene						0 / 9	4 - 5	2.4	2.5	2
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 9	0.0083 - 0.1	0.030	0.096	15
4,4'-DDE						0 / 9	0.0083 - 0.1	0.030	0.096	15
4,4'-DDT						0 / 9	0.0083 - 0.1	0.030	0.096	15
Aldrin						0 / 9	0.0083 - 0.05	0.016	0.028	13
alpha-Chlordane						0 / 9	0.0083 - 0.05	0.016	0.028	13
Aroclor 1248						0 / 9	0.042 - 1	0.29	0.99	15
Aroclor 1254						0 / 9	0.042 - 1	0.29	0.99	15
Aroclor 1260						0 / 9	0.042 - 1	0.29	0.99	15
beta-BHC						0 / 9	0.0083 - 0.05	0.016	0.028	13
delta-BHC						0 / 9	0.0083 - 0.05	0.016	0.028	13
Endosulfan I						0 / 9	0.0083 - 0.05	0.016	0.028	13
Endosulfan Sulfate						0 / 9	0.0083 - 0.1	0.030	0.096	15
Endrin Aldehyde						0 / 9	0.0083 - 0.1	0.030	0.096	15
gamma-Chlordane	0.0017	J	0.0017	J	SW-24-01	1 / 9	0.0083 - 0.05	0.013	0.0017	*13
Metals - ug/L										
Aluminum	21.3		2500		SW-MC-01	7 / 9	23.5 - 29.2	351	1365	8
Antimony						0 / 9	1.1 - 18.3	4.4	19	15
Arsenic	1.1	J	15.7	J	SW-MC-01	6 / 9	1 - 1.7	3.1	7.1	5
Barium	15.4		64		SW-MC-01	9 / 9	N/A	32	39	2
Beryllium						0 / 9	0.099 - 0.22	0.077	0.10	2
Cadmium						0 / 9	0.15 - 0.78	0.22	0.46	13
Chromium	0.34		0.88		SW-24-01	3 / 9	0.25 - 9	2.2	0.88	*15
Cobalt	7.1	J	7.1	J	SW-MC-01	1 / 9	0.5 - 3	1.4	7.1	*15
Copper	0.45		13.8		SW-MC-01	7 / 9	0.35 - 1.4	2.9	5.3	3
Cyanide						0 / 5	5	2.5	0.0	*1
Iron	118		15800		SW-MC-01	9 / 9	N/A	2878	5962	3
Lead	0.665	J	51.4		SW-MC-01	6 / 9	0.75	7.8	18	3
Manganese	46.4		1960		SW-MC-01	9 / 9	N/A	486	851	3
Mercury	0.097		0.13		SW-24-01	4 / 9	0.04 - 0.087	0.066	0.12	13
Nickel	0.66		6.5	J	SW-MC-01	7 / 9	0.5 - 1.2	1.5	2.7	3
Selenium	1.6	J	1.6	J	SW-MC-04	1 / 9	1.1 - 1.9	0.87	0.98	2
Silver						0 / 9	0.4 - 0.78	0.28	0.36	2
Thallium						0 / 9	1.2 - 1.5	0.68	0.71	2
Vanadium	0.85		12	J	SW-MC-01	4 / 9	0.55 - 2.6	2.2	5.0	3
Zinc	1.375	J	71.7		SW-MC-01	6 / 9	1.6 - 9	14	29	3

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-44
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT FOR SITE-WIDE MALLARD LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	39	J	290	J	SD-19-01-FW	12 / 47	11 - 35	39	130	15
Acetone	94	J	7300	J	SD-TT-30-01-TR	17 / 54	10 - 430	389	1369	14
cis-1,2-Dichloroethene	7	J	562	J	SD-20-01-ME	13 / 19	9 - 225	95	196	6
Tetrachloroethene	41	J	41	J	SD-15-03-FW	1 / 56	11 - 790	37	41	*14
Trichloroethene	6	J	2025	J	SD-20-01-ME	12 / 57	9 - 114	55	271	14
SVOCs - ug/Kg										
2-Methylnaphthalene	10	J	220	J	SD-09-06-FW	17 / 62	1 - 2700	204	220	*14
Acenaphthylene	1	J	480	J	SD-07-10-FW	23 / 62	1 - 2700	200	353	14
Anthracene	18	J	1100	J	SD-07-09-FW	30 / 63	67 - 910	261	385	13
Benzo(a)anthracene	40	J	9600		SD-07-10-ME	55 / 73	67 - 890	857	2024	14
Benzo(a)pyrene	33	J	10000		SD-07-10-ME	56 / 71	67 - 910	906	2097	14
Benzo(b)fluoranthene	45	J	16000	J	SD-07-10-ME	64 / 79	67 - 840	1479	3335	14
Benzo(g,h,i)perylene	44	J	5300		SD-07-10-ME	38 / 67	67 - 910	535	955	13
Benzo(k)fluoranthene	45	J	14000	J	SD-07-05-FW	57 / 73	67 - 840	1071	1259	5
Carbazole	63	J	680	J	SD-07-09-FW	11 / 47	130 - 910	248	326	13
Chrysene	40	J	10000		SD-07-10-ME	58 / 74	67 - 890	1073	2490	14
Dibenz(a,h)anthracene	46	J	2000		SD-07-10-ME	27 / 64	2 - 910	268	421	13
Dibenzofuran	56	J	500		SD-09-06-FW	4 / 45	130 - 2700	265	387	13
Fluoranthene	42	J	23000		SD-07-10-ME	68 / 79	67 - 890	1844	4450	14
Fluorene	14	J	810		SD-09-06-FW	29 / 63	1 - 910	221	305	13
Indeno(1,2,3-cd)pyrene	21	J	6900		SD-07-10-ME	45 / 70	67 - 910	577	678	5
Naphthalene	12	J	2500	J	SD-21-02-FW	24 / 63	1 - 2700	254	540	14
N-nitrosodiphenylamine	58	J	560	J	SD-10-01-FW	7 / 48	130 - 2700	282	401	13
Phenanthrene	62	J	12000		SD-07-10-ME	50 / 70	67 - 890	895	2180	14
Pyrene	52	J	15000		SD-07-10-ME	68 / 78	67 - 720	1491	1975	5
PCBs/Pesticides - ug/Kg										
4,4'-DDD	0.46	J	310		SD-13-03-ME	54 / 75	0.31 - 21	26	61	14
4,4'-DDE	0.089	J	160	J	SD-10-01-ME	66 / 78	0.31 - 21	17	36	14
4,4'-DDT	0.29	J	47		SD-07-10-FW	48 / 70	0.31 - 21	5.3	6.9	5
Aldrin	0.12	J	18	J	SD-10-01-ME	18 / 62	0.16 - 11	1.3	3.3	14
alpha-Chlordane	0.28	J	93		SD-13-03-ME	51 / 76	0.16 - 11	11	25	14
Aroclor 1248	15	J	560	J	SD-10-01-ME	17 / 69	3.1 - 440	64	105	13
Aroclor 1254	45		2600		SD-JY-07	10 / 69	3.1 - 440	150	464	14
Aroclor 1260	11		2400		SD-JY-07	29 / 71	3.1 - 440	192	517	14
beta-BHC	0.1	J	6.6		SD-07-07-FW	17 / 67	0.16 - 11	1.4	2.4	14
delta-BHC	0.08	J	24	J	SD-07-05-ME	13 / 61	0.16 - 11	1.9	4.8	14
Endosulfan I	0.11	J	68	J	SD-21-01-FW	16 / 69	0.16 - 11	4.6	14	14
Endosulfan Sulfate	0.38	J	2.1	J	SD-07-05-FW	4 / 60	0.31 - 21	2.3	2.1	*14
Endrin Aldehyde	0.47	J	11.7	J	SD-10-01-ME	23 / 63	0.31 - 21	2.9	4.3	13
gamma-Chlordane	0.12	J	650	J	SD-13-03-ME	53 / 74	0.16 - 11	15	69	14
Metals - mg/Kg										
Aluminum	1865		34400	J	SD-13-02-FW	259 / 259	3.3362 - 9.14	10336	11152	5
Antimony	0.41	J	117	J	SD-12-03-ME	156 / 239	0.26 - 6.6	6.2	11	14
Arsenic	3.1		4550		SD-12-03-ME	259 / 259	0.22 - 1	279	524	14
Barium	6		3420		SD-WW-11	257 / 259	0.018 - 16.3	87	89	5
Beryllium	0.12		2.9		SD-19-01-ME	214 / 255	0.016 - 0.65	0.68	0.74	3
Cadmium	0.089		37.4	J	SD-15-01-FW	229 / 259	0.0048 - 5.7	6.3	7.0	3
Chromium	3.3	J	24600	J	SD-WW-08	259 / 259	0.055 - 1	1215	1675	5
Cobalt	0.79		130	J	SD-CB-03-06	259 / 259	0.3336 - 0.88	15	16	5
Copper	4.2	J	3760	J	SD-TT-30-03	259 / 259	0.082 - 0.4799	390	579	14
Cyanide	0.26	J	12.1	J	SD-WS-08	40 / 82	0.0942 - 2	1.0	1.8	13
Iron	3960		258000		SD-19-01-TR	259 / 259	0.57 - 6.9495	26526	34923	13
Lead	1.9	J	2540		SD-WH-06	259 / 259	0.2002 - 0.62	342	381	3
Manganese	34.5	J	2640	J	SD-09-10-FW	259 / 259	0.018 - 0.4799	455	532	5
Mercury	0.05	J	89.2	J	SD-TT-30-03	232 / 255	0.0037 - 0.39	2.4	3.3	5
Nickel	0.59	J	177		SD-CB-04-03	255 / 259	0.15 - 5.3	22	23	3
Selenium	0.53	J	30.3		SD-12-03-ME	178 / 255	0.053 - 5	3.2	4.7	14
Silver	0.21	J	11.5		SD-CB-04-02	69 / 228	0.0094 - 2	0.55	0.84	13
Thallium	0.2225	J	18.1	J	SD-BW-03	113 / 237	0.038 - 3	1.4	2.2	14
Vanadium	4.2		163		SD-WH-04	259 / 259	0.073 - 0.64	44	52	13
Zinc	15.2		8750		SD-CB-04-03	254 / 259	0.16 - 634	1195	1322	3
Total Combustible Organics (mg/Kg)	1390		912000	J	SD-12-01-ME	54 / 57	117 - 2000	224746	490982	15
Total Organic Carbon (mg/Kg)	602		815000	J	SD-WH-07-TR	83 / 89	114 - 18500	122872	282357	15

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit
[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.
[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-45
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT FOR 38-ACRE MALLARD LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	65	J	290	J	SD-19-01-FW	9 / 15	18 - 35	97	137	2
Acetone	94	J	4300	J	SD-13-01-TR	14 / 20	10 - 430	628	1364	6
cis-1,2-Dichloroethene	23	J	562	J	SD-20-01-ME	9 / 15	22 - 225	116	209	3
Tetrachloroethene	41	J	41	J	SD-15-03-FW	1 / 21	18 - 790	80	41	*3
Trichloroethene	19	J	2025	J	SD-20-01-ME	9 / 22	18 - 114	128	1031	15
SVOCs - ug/Kg										
2-Methylnaphthalene	10	J	140		SD-21-01-ME	11 / 25	1 - 910	156	140	*3
Acenaphthylene	1	J	38	J	SD-21-01-ME	13 / 25	1 - 910	150	38	*15
Anthracene	18	J	420		SD-21-01-ME	13 / 25	67 - 910	202	249	2
Benzo(a)anthracene	110	J	1700		SD-13-01-ME	27 / 35	67 - 890	487	634	5
Benzo(a)pyrene	150	J	1900	J	SD-18-02-ME	27 / 32	67 - 910	608	821	5
Benzo(b)fluoranthene	120	J	3700	J	SD-20-02-FW	36 / 40	67 - 720	1047	1446	5
Benzo(g,h,i)perylene	120	J	1600	J	SD-18-03-ME	18 / 29	67 - 910	420	518	5
Benzo(k)fluoranthene	110	J	3400	J	SD-13-03-FW	30 / 35	67 - 720	630	794	3
Carbazole	170	J	170	J	SD-13-03-FW	1 / 13	280 - 910	283	170	*2
Chrysene	150	J	2200		SD-18-02-ME	29 / 35	67 - 890	665	877	5
Dibenz(a,h)anthracene	46	J	430		SD-18-02-ME	14 / 26	2 - 910	242	283	2
Dibenzofuran						0 / 12	280 - 910	293	343	2
Fluoranthene	85	J	5200		SD-13-01-ME	36 / 40	67 - 890	1163	1502	3
Fluorene	14	J	240		SD-21-01-ME	13 / 25	1 - 910	189	234	2
Indeno(1,2,3-cd)pyrene	79	J	1500	J	SD-18-03-ME	22 / 32	67 - 910	454	565	3
Naphthalene	12	J	2500	J	SD-21-02-FW	14 / 26	1 - 910	300	480	3
N-nitrosodiphenylamine	100	J	560	J	SD-10-01-FW	6 / 15	280 - 910	322	387	2
Phenanthrene	120	J	2700		SD-13-01-ME	22 / 32	67 - 890	529	669	3
Pyrene	99	J	4000		SD-13-01-ME	36 / 39	67 - 720	943	1211	3
PCBs/Pesticides - ug/Kg										
4,4'-DDD	1.9		310		SD-13-03-ME	29 / 39	0.31 - 9.2	29	124	15
4,4'-DDE	0.52	J	160	J	SD-10-01-ME	39 / 42	0.31 - 5.5	19	74	15
4,4'-DDT	0.45	J	12	J	SD-13-03-ME	24 / 35	0.31 - 7.3	2.2	2.8	3
Aldrin	0.47	J	18	J	SD-10-01-ME	7 / 28	0.16 - 4.6	1.3	7.6	15
alpha-Chlordane	0.62	J	93		SD-13-03-ME	31 / 40	0.16 - 6.1	14	46	15
Aroclor 1248	15	J	560	J	SD-10-01-ME	13 / 35	3.1 - 440	90	133	5
Aroclor 1254	45		2600		SD-JY-07	10 / 35	3.1 - 440	270	1241	15
Aroclor 1260	11		2400		SD-JY-07	25 / 37	3.1 - 440	336	1296	15
beta-BHC	0.71	J	3.1	J	SD-13-03-FW	7 / 32	0.16 - 4.7	1.0	2.6	15
delta-BHC	0.14	J	15	J	SD-13-03-ME	3 / 25	0.16 - 4.7	1.3	7.2	15
Endosulfan I	0.44	J	68	J	SD-21-01-FW	14 / 35	0.16 - 4.7	7.8	36	15
Endosulfan Sulfate	0.38	J	0.72	J	SD-11-01-ME	3 / 25	0.31 - 9.2	1.6	0.72	*15
Endrin Aldehyde	0.87	J	11.7	J	SD-10-01-ME	17 / 29	0.31 - 9.2	3.2	4.7	5
gamma-Chlordane	0.17	J	650	J	SD-13-03-ME	31 / 38	0.16 - 2.7	23	28	6
Metals - mg/Kg										
Aluminum	3140		34400	J	SD-13-02-FW	126 / 126	3.3362 - 9.14	13148	14245	3
Antimony	0.75	J	117	J	SD-12-03-ME	84 / 106	0.26 - 6.6	12	14	3
Arsenic	4.4	J	4550		SD-12-03-ME	126 / 126	0.22 - 1	468	771	5
Barium	12.3		3420		SD-WW-11	126 / 126	0.018 - 0.4799	130	130	5
Beryllium	0.2	J	2.9		SD-19-01-ME	105 / 122	0.02 - 0.65	0.94	1.0	2
Cadmium	0.46		37.4	J	SD-15-01-FW	124 / 126	0.037 - 0.81	9.0	13	14
Chromium	14.3		24600	J	SD-WW-08	126 / 126	0.055 - 1	2214	3872	5
Cobalt	2.4	J	57.5		SD-BW-05	126 / 126	0.3336 - 0.88	19	22	3
Copper	18.8		2340	J	SD-13-01-FW	126 / 126	0.082 - 0.4799	579	663	3
Cyanide	0.26	J	12.1	J	SD-WS-08	34 / 47	0.0942 - 2	1.4	1.7	3
Iron	4020		258000		SD-19-01-TR	126 / 126	0.57 - 6.9495	36919	42769	5
Lead	16.8		2540		SD-WH-06	126 / 126	0.2002 - 0.62	524	594	3
Manganese	51.9		2020		SD-19-01-TR	126 / 126	0.018 - 0.4799	616	696	3
Mercury	0.1	J	44.8		SD-12-03-ME	114 / 122	0.0037 - 0.39	3.3	5.3	5
Nickel	4.6		150		SD-JY-07	125 / 126	0.15 - 0.8	28	30	3
Selenium	0.53	J	30.3		SD-12-03-ME	112 / 123	0.053 - 5	4.9	5.5	3
Silver	0.21	J	5.3	J	SD-TT-28-03	43 / 110	0.0094 - 2	0.69	1.0	13
Thallium	0.2225	J	18.1	J	SD-BW-03	60 / 108	0.039 - 3	1.6	3.2	14
Vanadium	8.9		163		SD-WH-04	126 / 126	0.073 - 0.64	55	60	3
Zinc	80.1		4940	J	SD-21-01-ME	121 / 126	0.16 - 634	1673	1832	2
Total Combustible Organics (mg/Kg)	36700		912000	J	SD-12-01-ME	37 / 37	2000	315789	452493	13
Total Organic Carbon (mg/Kg)	15400		815000	J	SD-WH-07-TR	30 / 30	250 - 12000	223667	302532	3

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-46

SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 01[1]

WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	12	J	20	J	SD-01-04-FW	2 / 8	11 - 26	9
Acetone						0 / 8	12 - 120	33
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 8	11 - 26	6.9
Trichloroethene						0 / 8	11 - 26	6.9
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 8	370 - 870	227
Acenaphthylene						0 / 8	370 - 870	227
Anthracene	27	J	150	J	SD-01-06-FW	4 / 8	380 - 420	142
Benzo(a)anthracene	90	J	650	J	SD-01-06-FW	4 / 8	380 - 420	238
Benzo(a)pyrene	89	J	850	J	SD-01-06-FW	4 / 8	380 - 420	255
Benzo(b)fluoranthene	90	J	1100	J	SD-01-06-FW	4 / 8	380 - 420	282
Benzo(g,h,i)perylene	120	J	1000	J	SD-01-06-FW	2 / 8	370 - 420	289
Benzo(k)fluoranthene	94	J	840	J	SD-01-06-FW	4 / 8	380 - 420	255
Carbazole	74	J	74	J	SD-01-03-FW	1 / 8	370 - 870	212
Chrysene	130	J	1100	J	SD-01-06-FW	4 / 8	380 - 420	309
Dibenz(a,h)anthracene						0 / 8	370 - 870	227
Dibenzofuran						0 / 8	370 - 870	227
Fluoranthene	110	J	1500	J	SD-01-06-FW	5 / 8	390 - 420	413
Fluorene	54	J	54	J	SD-01-03-FW	1 / 8	370 - 870	210
Indeno(1,2,3-cd)pyrene	120	J	880	J	SD-01-06-FW	2 / 8	370 - 420	274
Naphthalene						0 / 8	370 - 870	227
N-nitrosodiphenylamine						0 / 8	370 - 870	227
Phenanthrene	100	J	590	J	SD-01-06-FW	5 / 8	390 - 420	286
Pyrene	130	J	1400	J	SD-01-06-FW	5 / 8	390 - 420	407
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 8	3.8 - 43	5
4,4'-DDE						0 / 8	3.8 - 43	5
4,4'-DDT						0 / 8	3.8 - 43	5
Aldrin						0 / 8	2 - 22	2.8
alpha-Chlordane						0 / 8	2 - 22	2.8
Aroclor 1248						0 / 8	38 - 430	54
Aroclor 1254						0 / 8	38 - 430	54
Aroclor 1260						0 / 8	38 - 430	54
beta-BHC						0 / 8	2 - 22	2.8
delta-BHC						0 / 8	2 - 22	2.8
Endosulfan I						0 / 8	2 - 22	2.8
Endosulfan Sulfate						0 / 8	3.8 - 43	5.4
Endrin Aldehyde						0 / 8	3.8 - 43	5.4
gamma-Chlordane						0 / 8	2 - 22	2.8
Metals - mg/Kg								
Aluminum	2970		19000		SD-01-06-FW	8 / 8	N/A	5329
Antimony	0.55	J	2.2	J	SD-01-06-FW	3 / 8	0.44 - 0.5	0.61
Arsenic	2.4		171		SD-01-06-FW	8 / 8	N/A	25
Barium	8.1		53.1		SD-01-06-FW	8 / 8	N/A	15
Beryllium	1		1		SD-01-06-FW	1 / 8	0.059 - 0.21	0.17
Cadmium	0.045		37.7		SD-01-06-FW	6 / 8	0.041 - 0.046	4.80
Chromium	6.9		95.9		SD-01-06-FW	8 / 8	N/A	19
Cobalt	2.6		38.9		SD-01-06-FW	8 / 8	N/A	7.7
Copper	5.8		1250		SD-01-06-FW	8 / 8	N/A	167
Cyanide						0 / 8	0.41 - 1.4	0.32
Iron	3830		20000		SD-01-06-FW	8 / 8	N/A	7328
Lead	7.9	J	384	J	SD-01-06-FW	8 / 8	N/A	62
Manganese	48.5		327		SD-01-06-FW	8 / 8	N/A	106
Mercury	0.63		0.63		SD-01-06-FW	1 / 8	0.015 - 0.028	0.09
Nickel	4.8		24.7		SD-01-06-FW	8 / 8	N/A	8
Selenium						0 / 8	0.43 - 2.2	0.39
Silver	0.51		0.51		SD-01-03-FW	1 / 8	0.28 - 0.7	0.22
Thallium	0.54		2.9		SD-01-06-FW	2 / 8	0.64 - 0.8	0.70
Vanadium	6.5		34.6		SD-01-06-FW	8 / 8	N/A	12
Zinc	46.1		7380		SD-01-06-FW	8 / 8	N/A	1010
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	830		65700		SD-01-06-FW	5 / 8	114 - 116	11027

N/A = Not Applicable or Not Available

J = Estimated Value

[1] Includes samples applicable to the muskrat model

US EPA ARCHIVE DOCUMENT

TABLE 4-47

SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 02[1]

WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	9	J	9	J	SD-02-01-FW	1 / 3	12	7
Acetone						0 / 3	16 - 52	17
cis-1,2-Dichloroethene						0 / 1	26	13.0
Tetrachloroethene						0 / 4	12 - 77	14.1
Trichloroethene						0 / 4	12 - 26	7.8
SVOCs - ug/Kg								
2-Methylnaphthalene	12	J	12	J	SD-02-01-ME	1 / 4	1 - 410	157
Acenaphthylene	22	J	22	J	SD-02-01-ME	1 / 4	1 - 410	159
Anthracene	62	J	75	J	SD-02-01-FW	2 / 4	67 - 410	137
Benzo(a)anthracene	168	J	590		SD-02-01-ME	2 / 4	67 - 410	292
Benzo(a)pyrene	190	J	620		SD-02-01-ME	2 / 4	67 - 410	305
Benzo(b)fluoranthene	180	J	720		SD-02-01-ME	2 / 4	67 - 410	328
Benzo(g,h,i)perylene	155	J	330		SD-02-01-ME	2 / 4	67 - 410	224
Benzo(k)fluoranthene	160	J	340		SD-02-01-ME	2 / 4	67 - 410	228
Carbazole						0 / 3	410	205
Chrysene	275	J	660		SD-02-01-ME	2 / 4	67 - 410	336
Dibenz(a,h)anthracene	69	J	69	J	SD-02-01-ME	1 / 4	2 - 410	171
Dibenzofuran						0 / 3	410	205
Fluoranthene	315	J	1200		SD-02-01-ME	2 / 4	67 - 410	481
Fluorene	44	J	44	J	SD-02-01-ME	1 / 4	67 - 410	165
Indeno(1,2,3-cd)pyrene	130.5	J	420		SD-02-01-ME	2 / 4	67 - 410	240
Naphthalene	13	J	13	J	SD-02-01-ME	1 / 4	67 - 410	157
N-nitrosodiphenylamine						0 / 3	410	205
Phenanthrene	210	J	390		SD-02-01-ME	2 / 4	67 - 410	253
Pyrene	420	J	1100		SD-02-01-ME	2 / 4	67 - 410	483
PCBs/Pesticides - ug/Kg								
4,4'-DDD	3.875	J	20	J	SD-02-01-ME	2 / 4	0.32 - 4.1	7
4,4'-DDE	10.35	J	26	J	SD-02-01-ME	2 / 4	0.32 - 4.1	10
4,4'-DDT	1.8	J	1.8	J	SD-02-01-ME	1 / 4	0.32 - 4.1	2
Aldrin						0 / 4	0.16 - 2.1	0.8
alpha-Chlordane	11	J	11	J	SD-02-01-ME	1 / 4	0.16 - 2.1	3.5
Aroclor 1248	160	J	160	J	SD-02-01-ME	1 / 4	3.2 - 41	55
Aroclor 1254						0 / 4	3.2 - 41	16
Aroclor 1260	140		140		SD-02-01-ME	1 / 4	3.2 - 41	50
beta-BHC						0 / 4	0.16 - 2.1	0.8
delta-BHC	1.3	J	1.3	J	SD-02-01-ME	1 / 4	0.16 - 2.1	1.1
Endosulfan I						0 / 4	0.16 - 2.1	0.8
Endosulfan Sulfate	0.47	J	0.47	J	SD-02-01-ME	1 / 4	0.32 - 4.1	1.7
Endrin Aldehyde	1.6	J	1.6	J	SD-02-01-ME	1 / 4	0.32 - 4.1	1.9
gamma-Chlordane	8	J	8	J	SD-02-01-ME	1 / 4	0.16 - 2.1	2.8
Metals - mg/Kg								
Aluminum	3220		6570	J	SD-02-01-ME	4 / 4	3.5	5178
Antimony	0.325	J	1.9	J	SD-02-01-ME	3 / 4	0.26 - 0.42	0.78
Arsenic	3.6		56.4		SD-02-01-ME	4 / 4	0.22	19
Barium	14		50.6		SD-02-01-ME	4 / 4	0.018	31
Beryllium	0.47	J	0.47	J	SD-02-01-ME	1 / 4	0.027 - 0.14	0.16
Cadmium	0.23		3.8		SD-02-01-ME	3 / 4	0.035 - 0.35	1.14
Chromium	7.5		103	J	SD-02-01-ME	4 / 4	0.055	37
Cobalt	4		17	J	SD-02-01-ME	4 / 4	0.37	8.4
Copper	10.3		128		SD-02-01-ME	4 / 4	0.082	45
Cyanide						0 / 3	0.59 - 0.68	0.31
Iron	5200		16900	J	SD-02-01-ME	4 / 4	0.57	9841
Lead	5.7	J	365.5	J	SD-02-01-FW	4 / 4	0.26	153
Manganese	70.4		206		SD-02-01-ME	4 / 4	0.018	121
Mercury	0.063		0.37		SD-02-01-ME	2 / 4	0.005 - 0.031	0.11
Nickel	6.2		21.5	J	SD-02-01-ME	4 / 4	0.15	11
Selenium	1.6	J	1.6	J	SD-02-01-ME	1 / 4	0.053 - 0.67	0.60
Silver	0.4	J	0.4	J	SD-02-01-ME	1 / 4	0.01 - 0.33	0.20
Thallium	0.469995	J	0.82		SD-02-02-FW	2 / 4	0.038 - 0.78	0.49
Vanadium	9.7		32.2		SD-02-01-ME	4 / 4	0.073	18
Zinc	34.8		992	J	SD-02-01-ME	4 / 4	0.16	342
Total Combustible Organics (mg/Kg)	125000	J	125000	J	SD-02-01-ME	1 / 1	2000	125000
Total Organic Carbon (mg/Kg)	2690		9420		SD-02-02-FW	3 / 3	N/A	6212

N/A = Not Applicable or Not Available

J = Estimated Value

[1] Includes samples applicable to the muskrat model

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TABLE 4-48
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	70		70		SD-03-02-FW	1 / 3	12	27
Acetone						0 / 3	12 - 310	59
cis-1,2-Dichloroethene	28	J	28	J	SD-03-02-ME	1 / 1	44	28.0
Tetrachloroethene						0 / 4	12 - 132	22.5
Trichloroethene						0 / 4	12 - 44	11.5
SVOCs - ug/Kg								
2-Methylnaphthalene	16	J	16	J	SD-03-02-ME	1 / 4	67 - 800	203
Acenaphthylene	39	J	39	J	SD-03-02-ME	1 / 4	67 - 800	209
Anthracene	81	J	120		SD-03-02-ME	2 / 4	67 - 400	149
Benzo(a)anthracene	320	J	1300		SD-03-02-ME	2 / 4	67 - 400	504
Benzo(a)pyrene	420	J	1000		SD-03-02-ME	2 / 4	67 - 400	454
Benzo(b)fluoranthene	1400		1400		SD-03-02-ME	1 / 4	67 - 800	549
Benzo(g,h,i)perylene	350	J	570		SD-03-02-ME	2 / 4	67 - 400	329
Benzo(k)fluoranthene	640		640		SD-03-02-ME	1 / 4	67 - 800	359
Carbazole						0 / 3	390 - 800	265
Chrysene	590	J	1300		SD-03-02-ME	2 / 4	67 - 400	571
Dibenz(a,h)anthracene	110		110		SD-03-02-ME	1 / 4	67 - 800	226
Dibenzofuran						0 / 3	390 - 800	265
Fluoranthene	740	J	2600		SD-03-02-ME	2 / 4	67 - 400	934
Fluorene	150		150		SD-03-02-ME	1 / 4	67 - 800	236
Indeno(1,2,3-cd)pyrene	330	J	620		SD-03-02-ME	2 / 4	67 - 400	336
Naphthalene	18	J	18	J	SD-03-02-ME	1 / 4	67 - 800	203
N-nitrosodiphenylamine						0 / 3	390 - 800	265
Phenanthrene	370	J	1000		SD-03-02-ME	2 / 4	67 - 400	441
Pyrene	880	J	2600		SD-03-02-ME	2 / 4	67 - 400	969
PCBs/Pesticides - ug/Kg								
4,4'-DDD	21		94		SD-03-02-ME	2 / 4	3.2 - 4	30
4,4'-DDE	18	J	29		SD-03-02-ME	2 / 4	3.2 - 4	13
4,4'-DDT	5.8	J	5.8	J	SD-03-02-ME	1 / 4	3.2 - 8	3
Aldrin						0 / 4	1.6 - 4.1	1.2
alpha-Chlordane	5.2	J	11	J	SD-03-02-ME	2 / 4	1.6 - 2.1	4.6
Aroclor 1248	160	J	160	J	SD-03-02-ME	1 / 4	3.2 - 80	60
Aroclor 1254						0 / 4	3.2 - 80	20
Aroclor 1260	110		110		SD-03-02-ME	1 / 4	3.2 - 80	47
beta-BHC						0 / 4	1.6 - 4.1	1.2
delta-BHC	2.3	J	2.3	J	SD-03-02-ME	1 / 4	1.6 - 4.1	1.6
Endosulfan I						0 / 4	1.6 - 4.1	1.2
Endosulfan Sulfate						0 / 4	3.2 - 8	2.4
Endrin Aldehyde	8.7	J	8.7	J	SD-03-02-FW	1 / 4	3.2 - 4	3.6
gamma-Chlordane	9.3	J	9.3	J	SD-03-02-ME	1 / 4	1.6 - 4.1	3.4
Metals - mg/Kg								
Aluminum	2730		6720	J	SD-03-02-ME	4 / 4	3.5	4760
Antimony	0.41	J	1.7	J	SD-03-02-ME	3 / 4	0.27 - 0.55	0.92
Arsenic	5.4		86.5		SD-03-02-ME	4 / 4	0.22	35
Barium	9		84.6		SD-03-02-ME	4 / 4	0.018	34
Beryllium	0.42		0.59	J	SD-03-02-ME	2 / 4	0.028 - 0.15	0.29
Cadmium	3.3		5.2		SD-03-02-ME	2 / 4	0.028 - 0.35	2.13
Chromium	9.6		200	J	SD-03-02-ME	4 / 4	0.055	75
Cobalt	4		21.4	J	SD-03-02-ME	4 / 4	0.38	11.4
Copper	6.4		171		SD-03-02-ME	4 / 4	0.083	75
Cyanide						0 / 3	0.63 - 1.5	0.46
Iron	4450		21900	J	SD-03-02-ME	4 / 4	0.57	11005
Lead	10.1		345	J	SD-03-02-ME	4 / 4	0.27	125
Manganese	69.1		503		SD-03-02-ME	4 / 4	0.018	234
Mercury	0.06	J	0.71		SD-03-02-ME	3 / 4	0.0051 - 0.04	0.26
Nickel	4.9		26.7	J	SD-03-02-ME	4 / 4	0.15	12
Selenium	4.2	J	4.2	J	SD-03-02-ME	1 / 4	0.053 - 2	1.44
Silver	0.69	J	0.69	J	SD-03-02-ME	1 / 4	0.01 - 0.54	0.31
Thallium						0 / 4	0.039 - 1.3	0.38
Vanadium	7.9		49.2		SD-03-02-ME	4 / 4	0.074	22
Zinc	60.4		1420	J	SD-03-02-ME	4 / 4	0.17	725
Total Combustible Organics (mg/Kg)	195000	J	195000	J	SD-03-02-ME	1 / 1	2000	195000
Total Organic Carbon (mg/Kg)	602		55000		SD-03-02-FW	3 / 3	N/A	18924

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-49

SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 04[1]

WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	82	J	99	J	SD-AO-03-TR	2 / 4	15 - 50	50
Acetone	340	J	340	J	SD-AO-03-TR	1 / 4	48 - 340	142
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 3	15 - 26	10.7
Trichloroethene						0 / 3	15 - 26	10.7
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 4	350 - 870	310
Acenaphthylene	350	J	350	J	SD-04-03-FW	1 / 4	350 - 750	289
Anthracene	180	J	960	J	SD-04-03-FW	3 / 4	350	469
Benzo(a)anthracene	240	J	3900	J	SD-04-03-FW	4 / 4	350	1688
Benzo(a)pyrene	290	J	4200	J	SD-04-03-FW	4 / 4	350	1773
Benzo(b)fluoranthene	520		4800	J	SD-04-03-FW	4 / 4	350	1930
Benzo(g,h,i)perylene	460	J	2300	J	SD-04-03-FW	3 / 4	350	1034
Benzo(k)fluoranthene	490	J	3500	J	SD-04-03-FW	3 / 4	350	1516
Carbazole	130	J	400	J	SD-04-03-FW	2 / 4	350 - 510	240
Chrysene	290	J	5900	J	SD-04-03-FW	4 / 4	350	2410
Dibenz(a,h)anthracene	150	J	1100	J	SD-04-03-FW	3 / 4	350	479
Dibenzofuran	170	J	170	J	SD-04-03-FW	1 / 4	350 - 750	244
Fluoranthene	540		7100	J	SD-04-03-FW	4 / 4	350	3310
Fluorene	180	J	470	J	SD-04-03-FW	2 / 4	350 - 510	270
Indeno(1,2,3-cd)pyrene	380	J	2100	J	SD-04-03-FW	3 / 4	350	939
Naphthalene	160	J	160	J	SD-04-03-FW	1 / 4	350 - 750	241
N-nitrosodiphenylamine						0 / 4	350 - 870	310
Phenanthrene	200	J	4600	J	SD-04-03-FW	4 / 4	350	1900
Pyrene	500		7000	J	SD-04-03-FW	4 / 4	350	3175
PCBs/Pesticides - ug/Kg								
4,4'-DDD	140	J	140	J	SD-04-03-FW	1 / 4	2.8 - 37	43
4,4'-DDE	2.4	J	56	J	SD-04-03-FW	2 / 4	2.8 - 37	22
4,4'-DDT						0 / 3	2.8 - 37	11
Aldrin						0 / 3	1.4 - 19	5.6
alpha-Chlordane						0 / 3	1.4 - 19	5.6
Aroclor 1248						0 / 3	28 - 370	108
Aroclor 1254						0 / 3	28 - 370	108
Aroclor 1260						0 / 3	28 - 370	108
beta-BHC						0 / 3	1.4 - 19	5.6
delta-BHC						0 / 3	1.4 - 19	5.6
Endosulfan I						0 / 3	1.4 - 19	5.6
Endosulfan Sulfate						0 / 3	2.8 - 37	10.8
Endrin Aldehyde						0 / 3	2.8 - 37	10.8
gamma-Chlordane						0 / 3	1.4 - 19	5.6
Metals - mg/Kg								
Aluminum	3190		20550		SD-AO-02	7 / 7	3.4632 - 370	14389
Antimony	1	J	5.1		SD-AO-03-TR	3 / 4	0.93 - 103	2.29
Arsenic	16.5		132		SD-AO-03	7 / 7	0.3463 - 406	86
Barium	11.6		189		SD-AO-03-TR	7 / 7	0.3463 - 35.9	123
Beryllium	0.4		1.1	J	SD-AO-03-TR	6 / 7	0.1385 - 4.75	0.79
Cadmium	0.8		11.45		SD-AO-02	7 / 7	0.1385 - 22.7	7.58
Chromium	27		364.5		SD-AO-02	7 / 7	0.3463 - 63.7	230
Cobalt	6.8		28.8		SD-AO-03	7 / 7	0.3463 - 100	21.0
Copper	54.8		469		SD-AO-02	7 / 7	0.3463 - 45	316
Cyanide	1.4		1.8		SD-AO-03	3 / 6	0.2296 - 1.6	1.07
Iron	6650		46200	J	SD-AO-03	7 / 7	2.7706 - 2406	30044
Lead	75.7		662		SD-AO-03	7 / 7	0.2078 - 75	443
Manganese	51.9		1280		SD-AO-03	7 / 7	0.3463 - 12.7	673
Mercury	0.06	J	1.5	J	SD-AO-03	7 / 7	0.1805 - 100	0.90
Nickel	5.8		45.8		SD-AO-03	7 / 7	0.3463 - 63	28
Selenium	1.6	J	2.7	J	SD-AO-02	3 / 7	0.7921 - 498	1.42
Silver	0.38	J	0.565	J	SD-AO-02	3 / 7	0.3463 - 41.7	0.39
Thallium	0.6	J	1.6		SD-04-03-FW	4 / 7	0.2376 - 400	0.75
Vanadium	12.3		80.8	J	SD-AO-03	7 / 7	0.3463 - 87	52
Zinc	415		2285		SD-AO-02	7 / 7	0.3463 - 75.9	1703
Total Combustible Organics (mg/Kg)	21500		93400		SD-04-03-FW	3 / 3	N/A	56433
Total Organic Carbon (mg/Kg)	210000		210000		SD-AO-03-TR	1 / 1	250	210000

N/A = Not Applicable or Not Available

J = Estimated Value

[1] Includes samples applicable to the muskrat model

US EPA ARCHIVE DOCUMENT

TABLE 4-50
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	39	J	39	J	SD-05-03-FW	1 / 3	12	17
Acetone						0 / 3	12 - 180	34
cis-1,2-Dichloroethene	7	J	7	J	SD-05-03-ME	1 / 1	9	7.0
Tetrachloroethene						0 / 4	12 - 28	9.0
Trichloroethene	6	J	6	J	SD-05-03-ME	1 / 4	9 - 20	7.0
SVOCs - ug/Kg								
2-Methylnaphthalene	55.5	J	55.5	J	SD-05-03-ME	1 / 4	67 - 650	195
Acenaphthylene	36	J	250	J	SD-05-03-FW	2 / 4	67 - 410	172
Anthracene	245		520	J	SD-05-03-FW	2 / 4	67 - 410	291
Benzo(a)anthracene	130	J	2300	J	SD-05-03-FW	4 / 4	67	899
Benzo(a)pyrene	130	J	2500	J	SD-05-03-FW	4 / 4	67	884
Benzo(b)fluoranthene	130	J	3000	J	SD-05-03-FW	3 / 4	67 - 390	1015
Benzo(g,h,i)perylene	120	J	1200	J	SD-05-03-FW	3 / 4	67 - 410	458
Benzo(k)fluoranthene	120	J	1900	J	SD-05-03-FW	3 / 4	67 - 390	665
Carbazole	220	J	220	J	SD-05-03-FW	1 / 3	390 - 410	207
Chrysene	160	J	2900	J	SD-05-03-FW	4 / 4	67	1054
Dibenz(a,h)anthracene	112.5		112.5		SD-05-03-ME	1 / 4	67 - 650	209
Dibenzofuran	87	J	87	J	SD-05-03-FW	1 / 3	390 - 410	162
Fluoranthene	260	J	4400	J	SD-05-03-FW	4 / 4	67	1813
Fluorene	225	J	230	J	SD-05-03-FW	2 / 4	67 - 410	214
Indeno(1,2,3-cd)pyrene	64	J	1200	J	SD-05-03-FW	4 / 4	67	430
Naphthalene	34.5	J	83	J	SD-05-03-FW	2 / 4	67 - 410	129
N-nitrosodiphenylamine						0 / 3	390 - 650	242
Phenanthrene	110	J	2200	J	SD-05-03-FW	4 / 4	67	1063
Pyrene	250	J	4100	J	SD-05-03-FW	4 / 4	67	1690
PCBs/Pesticides - ug/Kg								
4,4'-DDD	180		180		SD-05-03-ME	1 / 2	3.3 - 21	95
4,4'-DDE	35.5		35.5		SD-05-03-ME	1 / 2	3.3 - 21	23
4,4'-DDT	9.25	J	9.25	J	SD-05-03-ME	1 / 2	3.3 - 21	10
Aldrin						0 / 2	1.7 - 11	3.2
alpha-Chlordane	13.05	J	13.05	J	SD-05-03-ME	1 / 2	1.7 - 11	9.3
Aroclor 1248	120	J	120	J	SD-05-03-ME	1 / 2	3.3 - 210	113
Aroclor 1254						0 / 2	3.3 - 210	53
Aroclor 1260	74.5		74.5		SD-05-03-ME	1 / 2	3.3 - 210	90
beta-BHC						0 / 2	1.7 - 11	3.2
delta-BHC	3.65	J	3.65	J	SD-05-03-ME	1 / 2	1.7 - 11	4.6
Endosulfan I						0 / 2	1.7 - 11	3.2
Endosulfan Sulfate						0 / 2	3.3 - 21	6.1
Endrin Aldehyde						0 / 2	3.3 - 21	6.1
gamma-Chlordane	11.65	J	11.65	J	SD-05-03-ME	1 / 2	1.7 - 11	8.6
Metals - mg/Kg								
Aluminum	4470		6470		SD-05-02-FW	4 / 4	3.7	5073
Antimony	0.44	J	1.8	J	SD-05-03-FW	4 / 4	0.28	1.15
Arsenic	5.1		24.8		SD-05-03-FW	4 / 4	0.23	12
Barium	21.3		43.2		SD-05-02-FW	4 / 4	0.019	32
Beryllium	0.18		0.3		SD-05-03-FW	4 / 4	0.029	0.26
Cadmium	0.62		1.6		SD-05-03-FW	2 / 4	0.0048 - 0.043	0.56
Chromium	15		149		SD-05-03-FW	4 / 4	0.058	62
Cobalt	5	J	16		SD-05-03-FW	4 / 4	0.39	8.5
Copper	10.9		80.3		SD-05-03-FW	4 / 4	0.086	39
Cyanide						0 / 3	0.6 - 0.98	0.37
Iron	7990		14200		SD-05-01-FW	4 / 4	0.59	11163
Lead	39.3		655	J	SD-05-03-ME	4 / 4	0.28	236
Manganese	97.45		952		SD-05-02-FW	4 / 4	0.019	349
Mercury	0.225		1.2	J	SD-05-03-FW	2 / 4	0.005 - 0.05	0.37
Nickel	6.8		11	J	SD-05-03-ME	4 / 4	0.15	9
Selenium						0 / 4	0.053 - 2.1	0.47
Silver	0.455	J	0.455	J	SD-05-03-ME	1 / 4	0.01 - 0.54	0.25
Thallium	0.85		0.97		SD-05-02-FW	2 / 4	0.038 - 1.3	0.62
Vanadium	12.5		23.55		SD-05-03-ME	4 / 4	0.077	17
Zinc	111		571		SD-05-03-FW	4 / 4	0.17	234
Total Combustible Organics (mg/Kg)	1840		59100	J	SD-05-03-ME	4 / 4	2000	30195
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-51
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	45		62		SD-06-01-FW	3 / 3	N/A	51
Acetone						0 / 4	26 - 280	105
cis-1,2-Dichloroethene	38	J	38	J	SD-06-03-ME	1 / 1	32	38.0
Tetrachloroethene						0 / 4	20 - 96	20.9
Trichloroethene	52	J	52	J	SD-06-03-ME	1 / 4	20 - 32	21.9
SVOCs - ug/Kg								
2-Methylnaphthalene	40	J	40	J	SD-06-03-ME	1 / 5	67 - 2900	499
Acenaphthylene	110	J	130	J	SD-06-01-FW	3 / 5	67 - 2900	425
Anthracene	64	J	1300	J	SD-06-03-FW	5 / 5	67 - 630	477
Benzo(a)anthracene	310	J	4200	J	SD-06-03-ME	5 / 5	67 - 630	1788
Benzo(a)pyrene	370	J	5100	J	SD-06-03-ME	5 / 5	67 - 630	1910
Benzo(b)fluoranthene	610	J	6100	J	SD-06-03-ME	4 / 5	67 - 730	2087
Benzo(g,h,i)perylene	150	J	1900	J	SD-06-03-ME	5 / 5	10 - 67	954
Benzo(k)fluoranthene	160	J	2400	J	SD-06-03-FW	4 / 5	67 - 730	983
Carbazole	98	J	98	J	SD-06-01-FW	1 / 4	630 - 2900	547
Chrysene	450	J	6900	J	SD-06-03-ME	5 / 5	67 - 630	2690
Dibenz(a,h)anthracene	720	J	720	J	SD-06-03-ME	1 / 5	67 - 2900	635
Dibenzofuran						0 / 4	630 - 2900	614
Fluoranthene	780		11000		SD-06-03-FW	5 / 5	67 - 630	5016
Fluorene	110	J	430	J	SD-06-03-FW	3 / 5	67 - 650	316
Indeno(1,2,3-cd)pyrene	150	J	2400	J	SD-06-03-ME	5 / 5	67 - 630	968
Naphthalene	53	J	53	J	SD-06-03-ME	1 / 5	67 - 2900	502
N-nitrosodiphenylamine						0 / 4	630 - 2900	614
Phenanthrene	340	J	6300		SD-06-03-FW	5 / 5	67 - 630	2666
Pyrene	600	J	7500		SD-06-03-ME	5 / 5	67 - 630	3380
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.2		94	J	SD-06-01-FW	5 / 5	1.3 - 3.2	71
4,4'-DDE	2.6		100	J	SD-06-03-FW	5 / 5	1.3 - 3.2	71
4,4'-DDT	15	J	32	J	SD-06-01-FW	2 / 4	1.3 - 49	18
Aldrin						0 / 4	0.63 - 25	5.8
alpha-Chlordane	27	J	80		SD-06-03-ME	4 / 5	0.63 - 1.6	34.1
Aroclor 1248	120	J	120	J	SD-06-03-ME	1 / 4	3.2 - 490	139
Aroclor 1254						0 / 4	3.2 - 490	110
Aroclor 1260	82		82		SD-06-03-ME	1 / 4	3.2 - 490	130
beta-BHC						0 / 4	0.63 - 25	5.8
delta-BHC	25	J	25	J	SD-06-03-ME	1 / 4	0.63 - 25	11.8
Endosulfan I						0 / 4	0.63 - 25	5.8
Endosulfan Sulfate						0 / 4	1.3 - 49	11.3
Endrin Aldehyde						0 / 4	1.3 - 49	11.3
gamma-Chlordane	48	J	48	J	SD-06-03-ME	1 / 4	0.63 - 25	17.6
Metals - mg/Kg								
Aluminum	4780		15700		SD-JP-01	6 / 6	3.5 - 9.14	9907
Antimony	1.2	J	2.8	J	SD-06-03-FW	6 / 6	0.26 - 0.74	2.28
Arsenic	21.8		135		SD-JP-01	6 / 6	0.22 - 1	74
Barium	28.9		130		SD-06-03-ME	6 / 6	0.018 - 0.4439	77
Beryllium	0.28		1		SD-06-03-ME	6 / 6	0.027 - 0.2	0.61
Cadmium	1.5		9.8		SD-JP-01	6 / 6	0.037 - 0.6	5.03
Chromium	172		442		SD-06-03-FW	6 / 6	0.055 - 1	306
Cobalt	6		20.9		SD-06-03-ME	6 / 6	0.36 - 0.4439	14.1
Copper	83.9		435		SD-JP-01	6 / 6	0.082 - 0.4439	238
Cyanide	2.2		3	J	SD-JP-01	2 / 4	0.4085 - 1.5	1.61
Iron	9930		40600		SD-06-03-ME	6 / 6	0.57 - 1.7754	22738
Lead	193		455		SD-06-03-ME	6 / 6	0.26 - 0.6	366
Manganese	296		1630		SD-06-03-ME	6 / 6	0.018 - 0.4439	679
Mercury	0.4	J	3.2		SD-JP-01	6 / 6	0.005 - 0.1235	1.36
Nickel	10.7		35.5	J	SD-JP-01	6 / 6	0.15 - 0.8	22
Selenium	1.6	J	3.4	J	SD-06-03-ME	2 / 6	0.4 - 2.1	1.28
Silver	0.18	J	0.18	J	SD-06-03-ME	1 / 6	0.01 - 1	0.27
Thallium	0.92	J	1.2		SD-06-03-FW	2 / 6	0.043 - 1.2	0.68
Vanadium	24.5		60.2		SD-06-03-ME	6 / 6	0.073 - 0.64	41
Zinc	384		1920		SD-JP-01	6 / 6	0.16 - 1.7	1068
Total Combustible Organics (mg/Kg)	41600		197000	J	SD-06-03-ME	4 / 4	2000	88800
Total Organic Carbon (mg/Kg)	100000		100000		SD-06-03-TR	1 / 1	250	100000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-52
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 07
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	10.25	J	89		SD-07-04-FW	3 / 10	13 - 28	23
Acetone						0 / 9	21 - 280	46
cis-1,2-Dichloroethene	18	J	24	J	SD-07-10-ME	3 / 3	25 - 34	20.7
Tetrachloroethene						0 / 12	13 - 101	19.0
Trichloroethene	16	J	35	J	SD-07-10-ME	3 / 12	13 - 34	14.6
SVOCs - ug/Kg								
2-Methylnaphthalene	44	J	130	J	SD-07-10-FW	6 / 12	67 - 2700	371
Acenaphthylene	67	J	480	J	SD-07-10-FW	8 / 12	67 - 2700	367
Anthracene	131	J	1100	J	SD-07-09-FW	13 / 13	67	605
Benzo(a)anthracene	415	J	9600		SD-07-10-ME	13 / 13	67	3993
Benzo(a)pyrene	490	J	10000		SD-07-10-ME	13 / 13	67	3891
Benzo(b)fluoranthene	555		16000	J	SD-07-10-ME	13 / 13	67	6812
Benzo(g,h,i)perylene	270	J	5300		SD-07-10-ME	12 / 13	67 - 890	1778
Benzo(k)fluoranthene	480	J	14000	J	SD-07-05-FW	13 / 13	67	5291
Carbazole	83	J	680	J	SD-07-09-FW	10 / 10	N/A	338
Chrysene	670	J	10000		SD-07-10-ME	13 / 13	67	4996
Dibenz(a,h)anthracene	82	J	2000		SD-07-10-ME	11 / 13	67 - 890	573
Dibenzofuran	96	J	190	J	SD-07-06-FW	4 / 9	430 - 2700	407
Fluoranthene	1000		23000		SD-07-10-ME	13 / 13	67	9142
Fluorene	100	J	640		SD-07-02-ME	12 / 13	67 - 430	391
Indeno(1,2,3-cd)pyrene	220	J	6900		SD-07-10-ME	12 / 13	67 - 890	2028
Naphthalene	52	J	130	J	SD-07-10-FW	6 / 12	67 - 2700	367
N-nitrosodiphenylamine						0 / 9	420 - 2700	559
Phenanthrene	400	J	12000		SD-07-10-ME	13 / 13	67	4138
Pyrene	840	J	15000		SD-07-10-ME	13 / 13	67	7080
PCBs/Pesticides - ug/Kg								
4,4'-DDD	18		76		SD-07-10-FW	12 / 13	3.2 - 21	39
4,4'-DDE	12	J	69		SD-07-10-FW	12 / 13	3.2 - 21	32
4,4'-DDT	3.8	J	47		SD-07-10-FW	12 / 13	3.2 - 21	22
Aldrin	0.24	J	5.7		SD-07-09-FW	6 / 12	1.6 - 11	2.6
alpha-Chlordane	9.25	J	80		SD-07-10-ME	13 / 13	1.6	35.5
Aroclor 1248	29	J	67	J	SD-07-10-ME	3 / 12	3.2 - 210	46
Aroclor 1254						0 / 12	3.2 - 210	35
Aroclor 1260	50		95		SD-07-02-ME	3 / 12	3.2 - 210	53
beta-BHC	1.5	J	6.6		SD-07-07-FW	7 / 13	1.6 - 11	3.2
delta-BHC	0.33	J	24	J	SD-07-05-ME	7 / 13	1.6 - 11	4.5
Endosulfan I						0 / 12	1.6 - 11	2.0
Endosulfan Sulfate	2.1	J	3.9	J	SD-07-04-FW	2 / 13	3.2 - 21	3.7
Endrin Aldehyde	0.94	J	27	J	SD-07-02-ME	7 / 12	3.2 - 21	5.5
gamma-Chlordane	8.8		53	J	SD-07-04-FW	12 / 13	1.6 - 11	26.1
Metals - mg/Kg								
Aluminum	4890	J	22600	J	SD-07-10-FW	13 / 13	3.5 - 3.6	10171
Antimony	0.72		3.1		SD-07-10-FW	13 / 13	0.26 - 0.27	2.00
Arsenic	10.3	J	129	J	SD-07-10-FW	13 / 13	0.22	62
Barium	21.35		118		SD-07-05-ME	13 / 13	0.018 - 0.019	67
Beryllium	0.23		1.3		SD-07-10-FW	10 / 13	0.027 - 0.32	0.56
Cadmium	0.645		10.3		SD-07-10-FW	7 / 13	0.037 - 6.1	3.37
Chromium	31.9	J	442	J	SD-07-10-FW	13 / 13	0.055 - 0.056	184
Cobalt	6.1		32.6		SD-07-10-FW	13 / 13	0.37 - 0.38	14.4
Copper	23.4	J	380	J	SD-07-10-FW	13 / 13	0.082 - 0.084	175
Cyanide	1.4		1.8		SD-07-05-FW	2 / 10	0.54 - 1.4	0.72
Iron	9490	J	35400		SD-07-05-ME	13 / 13	0.57 - 0.58	20693
Lead	41.2		480		SD-07-04-FW	13 / 13	0.26 - 0.27	267
Manganese	108.55		595	J	SD-07-04-FW	13 / 13	0.018 - 0.019	337
Mercury	0.28	J	5.7	J	SD-07-10-FW	12 / 13	0.005 - 0.11	1.44
Nickel	8.2		37.5		SD-07-05-ME	13 / 13	0.15	23
Selenium	1.9		2.4	J	SD-07-10-ME	4 / 13	0.052 - 3.2	1.19
Silver	0.78	J	1.1		SD-07-04-FW	4 / 13	0.0095 - 0.79	0.46
Thallium	0.815		3.8		SD-07-10-FW	9 / 13	0.043 - 1.6	1.57
Vanadium	17.2		79.2		SD-07-10-FW	13 / 13	0.073 - 0.075	40
Zinc	106	J	2490	J	SD-07-10-FW	13 / 13	0.16 - 0.17	974
Total Combustible Organics (mg/Kg)	13800		218000	J	SD-07-10-ME	13 / 13	2000	95865
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-53
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 08
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone						0 / 3	12 - 15	7
Acetone						0 / 3	12 - 24	9
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 3	12 - 15	6.7
Trichloroethene						0 / 3	12 - 15	6.7
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 3	400 - 490	218
Acenaphthylene	81	J	120	J	SD-08-02-FW	2 / 3	400	134
Anthracene	56	J	120	J	SD-08-02-FW	3 / 3	N/A	99
Benzo(a)anthracene	290	J	680		SD-08-02-FW	3 / 3	N/A	483
Benzo(a)pyrene	450		940		SD-08-02-FW	3 / 3	N/A	627
Benzo(b)fluoranthene	950		1900		SD-08-02-FW	3 / 3	N/A	1283
Benzo(g,h,i)perylene	260	J	700		SD-08-02-FW	3 / 3	N/A	413
Benzo(k)fluoranthene	960		2000		SD-08-02-FW	3 / 3	N/A	1353
Carbazole	63	J	110	J	SD-08-02-FW	2 / 3	420	128
Chrysene	450		1000		SD-08-02-FW	3 / 3	N/A	677
Dibenz(a,h)anthracene	60	J	160	J	SD-08-02-FW	3 / 3	N/A	93
Dibenzofuran	56	J	56	J	SD-08-02-FW	1 / 3	400 - 420	155
Fluoranthene	520		1400		SD-08-02-FW	3 / 3	N/A	897
Fluorene	50	J	100	J	SD-08-02-FW	3 / 3	N/A	73
Indeno(1,2,3-cd)pyrene	240	J	680		SD-08-02-FW	3 / 3	N/A	400
Naphthalene	41	J	200	J	SD-08-02-FW	3 / 3	N/A	98
N-nitrosodiphenylamine	58	J	58	J	SD-08-01-FW	1 / 3	400 - 490	168
Phenanthrene	280	J	610		SD-08-02-FW	3 / 3	N/A	477
Pyrene	640	J	2000		SD-08-02-FW	3 / 3	N/A	1150
PCBs/Pesticides - ug/Kg								
4,4'-DDD	3.3	J	9.8		SD-08-01-FW	3 / 3	N/A	7
4,4'-DDE	3.5	J	4.2	J	SD-08-03-FW	3 / 3	N/A	4
4,4'-DDT	0.87	J	3	J	SD-08-01-FW	2 / 2	N/A	2
Aldrin						0 / 2	2.1 - 2.5	1.2
alpha-Chlordane	1.5	J	1.5	J	SD-08-03-FW	1 / 3	2.1 - 2.5	1.3
Aroclor 1248						0 / 2	41 - 49	23
Aroclor 1254						0 / 2	41 - 49	23
Aroclor 1260						0 / 2	41 - 49	23
beta-BHC						0 / 2	2.1 - 2.5	1.2
delta-BHC	0.32	J	0.32	J	SD-08-03-FW	1 / 3	2.1 - 2.5	0.9
Endosulfan I						0 / 2	2.1 - 2.5	1.2
Endosulfan sulfate						0 / 2	4.1 - 4.9	2.3
Endrin aldehyde	0.47	J	0.47	J	SD-08-02-FW	1 / 2	4.1	1.3
gamma-Chlordane	0.25	J	1.4	J	SD-08-03-FW	3 / 3	N/A	0.8
Metals - mg/Kg								
Aluminum	4590	J	5950	J	SD-08-02-FW	3 / 3	N/A	5457
Antimony	0.74		1.6		SD-08-02-FW	3 / 3	N/A	1.03
Arsenic	10.8	J	28.9	J	SD-08-02-FW	3 / 3	N/A	19
Barium	15.7		21.2		SD-08-02-FW	3 / 3	N/A	19
Beryllium	0.25		0.32		SD-08-02-FW	2 / 3	0.19	0.22
Cadmium						0 / 3	0.6 - 1.8	0.62
Chromium	17.8	J	119	J	SD-08-02-FW	3 / 3	N/A	54
Cobalt	5.2		10.6		SD-08-02-FW	3 / 3	N/A	7.3
Copper	28.3	J	133	J	SD-08-02-FW	3 / 3	N/A	74
Cyanide						0 / 3	0.6 - 0.61	0.30
Iron	7110	J	23200	J	SD-08-02-FW	3 / 3	N/A	13237
Lead	20		70.7		SD-08-02-FW	3 / 3	N/A	43
Manganese	99.5	J	228	J	SD-08-02-FW	3 / 3	N/A	161
Mercury	0.11	J	1	J	SD-08-02-FW	3 / 3	N/A	0.46
Nickel	7		20.2		SD-08-02-FW	3 / 3	N/A	12
Selenium						0 / 3	0.67 - 0.9	0.39
Silver						0 / 3	0.27 - 0.32	0.15
Thallium	1.1		1.7		SD-08-02-FW	3 / 3	N/A	1.43
Vanadium	11.6		17.5		SD-08-02-FW	3 / 3	N/A	15
Zinc	171	J	539	J	SD-08-02-FW	3 / 3	N/A	350
Total Combustible Organics (mg/Kg)	7560		17900		SD-08-02-FW	2 / 3	117	8506
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-54
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 09
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone						0 / 10	12 - 16	7
Acetone						0 / 10	12 - 21	8
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 10	12 - 16	6.6
Trichloroethene						0 / 10	12 - 16	6.6
SVOCs - ug/Kg								
2-Methylnaphthalene	220	J	220	J	SD-09-06-FW	1 / 10	390 - 520	219
Acenaphthylene	82	J	82	J	SD-09-06-FW	1 / 10	390 - 520	205
Anthracene	930		930		SD-09-06-FW	1 / 10	390 - 520	290
Benzo(a)anthracene	40	J	1000		SD-09-06-FW	8 / 10	410 - 520	212
Benzo(a)pyrene	45	J	1100		SD-09-06-FW	8 / 10	410 - 520	209
Benzo(b)fluoranthene	76	J	2300		SD-09-06-FW	8 / 10	410 - 520	396
Benzo(g,h,i)perylene	44	J	290	J	SD-09-06-FW	2 / 10	390 - 520	210
Benzo(k)fluoranthene	69	J	2100		SD-09-06-FW	8 / 10	410 - 520	361
Carbazole	480		480		SD-09-06-FW	1 / 10	390 - 520	245
Chrysene	48	J	1400		SD-09-06-FW	8 / 10	410 - 520	252
Dibenz(a,h)anthracene	80	J	80	J	SD-09-06-FW	1 / 10	390 - 520	205
Dibenzofuran	500		500		SD-09-06-FW	1 / 10	390 - 520	247
Fluoranthene	42	J	1800		SD-09-06-FW	9 / 10	410	338
Fluorene	45	J	810		SD-09-06-FW	2 / 10	390 - 520	262
Indeno(1,2,3-cd)pyrene	21	J	370	J	SD-09-06-FW	4 / 10	390 - 520	188
Naphthalene	250	J	250	J	SD-09-06-FW	1 / 10	390 - 520	222
N-nitrosodiphenylamine						0 / 10	390 - 520	217
Phenanthrene	62	J	1900		SD-09-06-FW	8 / 10	410 - 520	306
Pyrene	52	J	2200		SD-09-06-FW	9 / 10	410	371
PCBs/Pesticides - ug/Kg								
4,4'-DDD	0.46	J	83		SD-09-07-FW	9 / 10	4.4	16
4,4'-DDE	0.089	J	27		SD-09-02-FW	9 / 10	3.9	8
4,4'-DDT	0.29	J	19		SD-09-07-FW	10 / 10	N/A	4
Aldrin	0.12	J	2	J	SD-09-02-FW	8 / 10	2.1 - 2.3	0.6
alpha-Chlordane	0.28	J	1.9	J	SD-09-07-FW	7 / 10	2 - 2.7	0.8
Aroclor 1248						0 / 10	39 - 52	22
Aroclor 1254						0 / 10	39 - 52	22
Aroclor 1260						0 / 10	39 - 52	22
beta-BHC	0.1	J	0.92	J	SD-09-07-FW	5 / 10	2 - 2.7	0.7
delta-BHC	0.08	J	0.85	J	SD-09-10-FW	2 / 10	2 - 2.7	1.0
Endosulfan I	0.11	J	0.51	J	SD-09-07-FW	2 / 10	2 - 2.7	0.9
Endosulfan sulfate						0 / 10	3.9 - 5.2	2.2
Endrin aldehyde	0.9	J	0.9	J	SD-09-02-FW	1 / 10	3.9 - 5.2	2.0
gamma-Chlordane	0.15	J	2.4		SD-09-07-FW	7 / 10	2 - 2.1	0.8
Metals - mg/Kg								
Aluminum	2330	J	7270	J	SD-09-08-FW	10 / 10	N/A	4247
Antimony	0.64		1.3		SD-09-08-FW	8 / 10	0.51 - 0.57	0.81
Arsenic	18.1	J	48.5	J	SD-09-02-FW	10 / 10	N/A	29
Barium	6		73.9		SD-09-10-FW	10 / 10	N/A	21
Beryllium	0.14		0.24		SD-09-03-FW	7 / 10	0.081 - 0.26	0.16
Cadmium	0.19		1.2	J	SD-09-10-FW	2 / 10	0.5 - 1.5	0.49
Chromium	9.3	J	91.8	J	SD-09-01-FW	10 / 10	N/A	45
Cobalt	2.7		13.3		SD-09-10-FW	10 / 10	N/A	5.9
Copper	4.2	J	102	J	SD-09-01-FW	10 / 10	N/A	47
Cyanide						0 / 8	0.49 - 0.78	0.29
Iron	4910	J	30600		SD-09-10-FW	10 / 10	N/A	10919
Lead	2.4		86.8		SD-09-01-FW	10 / 10	N/A	30
Manganese	43.2	J	2640	J	SD-09-10-FW	10 / 10	N/A	365
Mercury	0.19	J	0.68	J	SD-09-07-FW	7 / 10	0.049 - 0.06	0.26
Nickel	5.7		12.5		SD-09-09-FW	10 / 10	N/A	8
Selenium	0.62		0.62		SD-09-10-FW	1 / 10	0.45 - 2.6	0.43
Silver						0 / 10	0.22 - 0.43	0.15
Thallium	0.68		2.4		SD-09-10-FW	6 / 10	0.52 - 1	0.92
Vanadium	6.5		19.3		SD-09-08-FW	10 / 10	N/A	11
Zinc	57.1	J	479	J	SD-09-10-FW	10 / 10	N/A	156
Total Combustible Organics (mg/Kg)	3860		3860		SD-09-10-FW	1 / 2	117	1959
Total Organic Carbon (mg/Kg)	1050		46200		SD-09-02-FW	5 / 8	114 - 121	8735

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-55
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 10
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone						0 / 2	20 - 35	13.8
Acetone						0 / 2	35 - 250	87
cis-1,2-Dichloroethene	64	J	64	J	SD-10-01-ME	1 / 3	35 - 110	43
Tetrachloroethene						0 / 4	20 - 330	81
Trichloroethene	60	J	60	J	SD-10-02-ME	1 / 4	20 - 110	35
SVOCs - ug/Kg								
2-Methylnaphthalene	33	J	33	J	SD-10-01-ME	1 / 4	10 - 660	160
Acenaphthylene	13	J	20	J	SD-10-01-ME	2 / 4	10 - 660	158
Anthracene	49	J	96.5	J	SD-10-01-ME	2 / 4	67 - 660	186
Benzo(a)anthracene	210		580		SD-10-01-ME	2 / 4	67 - 660	348
Benzo(a)pyrene	250		620		SD-10-01-ME	2 / 4	67 - 660	368
Benzo(b)fluoranthene	290	J	965	J	SD-10-01-ME	4 / 6	67 - 660	459
Benzo(g,h,i)perylene	200		365		SD-10-01-ME	2 / 4	67 - 660	291
Benzo(k)fluoranthene	220	J	550	J	SD-10-02-FW	4 / 6	67 - 660	362
Carbazole						0 / 2	540 - 660	300
Chrysene	380		650		SD-10-01-ME	2 / 4	67 - 660	408
Dibenz(a,h)anthracene	69		125		SD-10-01-ME	2 / 4	67 - 660	199
Dibenzofuran						0 / 2	540 - 660	300
Fluoranthene	85	J	1950	J	SD-10-01-ME	5 / 6	67 - 540	586
Fluorene	72	J	115	J	SD-10-01-ME	2 / 4	10 - 660	197
Indeno(1,2,3-cd)pyrene	190		405		SD-10-01-ME	2 / 4	67 - 660	299
Naphthalene	400	J	560	J	SD-10-01-FW	3 / 4	540	174
N-nitrosodiphenylamine	26	J	71	J	SD-10-01-ME	2 / 4	67 - 660	420
Phenanthrene	210		690	J	SD-10-01-ME	2 / 4	67 - 660	375
Pyrene	99	J	1650	J	SD-10-01-ME	5 / 6	67 - 540	569
PCBs/Pesticides - ug/Kg								
4,4'-DDD	17		179	J	SD-10-01-ME	4 / 6	0.35 - 6.6	74
4,4'-DDE	0.85	J	160	J	SD-10-01-ME	5 / 6	0.35 - 4.2	54
4,4'-DDT	0.93	J	3.5	J	SD-10-01-ME	4 / 6	0.35 - 4.2	1.9
Aldrin	18	J	18	J	SD-10-01-ME	1 / 4	0.17 - 3.4	5.2
alpha-Chlordane	0.92	J	29.5	J	SD-10-01-ME	5 / 6	0.17 - 2.1	8.9
Aroclor 1248	47	J	560	J	SD-10-01-ME	2 / 4	3.4 - 66	165
Aroclor 1254						0 / 4	3.3 - 66	14
Aroclor 1260	44		320	J	SD-10-01-ME	2 / 4	3.4 - 66	105
beta-BHC						0 / 4	0.17 - 3.4	0.9
delta-BHC	0.14	J	0.14	J	SD-10-03-FW	1 / 4	0.17 - 2.1	0.5
Endosulfan I						0 / 4	0.17 - 3.4	0.9
Endosulfan Sulfate						0 / 4	0.35 - 6.6	1.8
Endrin Aldehyde	1.7	J	11.7	J	SD-10-01-ME	2 / 4	0.35 - 6.6	4.7
gamma-Chlordane	0.25	J	20.5	J	SD-10-01-ME	5 / 6	0.17 - 2.1	8.0
Metals - mg/Kg								
Aluminum	7690		29300	J	SD-10-02-FW	6 / 6	3.5 - 9.14	23990
Antimony	3.1		39.7		SD-10-02-TR	6 / 6	0.26 - 0.74	14.6
Arsenic	187	J	2180		SD-10-02-TR	6 / 6	0.22 - 1	863
Barium	32.4		112.6		SD-10-01-ME	6 / 6	0.018 - 0.4	69
Beryllium	0.48		2.05		SD-10-01-ME	6 / 6	0.027 - 0.2	1.54
Cadmium	5.9		21.15	J	SD-10-01-FW	6 / 6	0.037 - 0.6	13.44
Chromium	114	J	3435		SD-10-01-ME	6 / 6	0.055 - 1	1376
Cobalt	11.2		40.3		SD-10-01-ME	6 / 6	0.36 - 0.48	22.0
Copper	298		2315		SD-10-01-ME	6 / 6	0.082 - 0.44	1707
Cyanide						0 / 1	0.91	0.46
Iron	10800		51650		SD-10-01-ME	6 / 6	0.57 - 1.4	33225
Lead	130	J	881		SD-10-01-ME	6 / 6	0.26 - 0.6	590
Manganese	388	J	727		SD-10-02-TR	6 / 6	0.018 - 0.24	532
Mercury	0.19	J	24.2		SD-10-02-ME	6 / 6	0.0049 - 0.02	10.55
Nickel	13.3		45.75		SD-10-01-ME	6 / 6	0.15 - 0.8	27
Selenium	1.9	J	11.5		SD-10-02-ME	6 / 6	0.4 - 1	6.81
Silver	0.395	J	0.57	J	SD-10-02-ME	2 / 4	0.0094 - 1	0.44
Thallium						0 / 4	0.042 - 1.7	0.68
Vanadium	21.4		76.95		SD-10-01-ME	6 / 6	0.073 - 0.64	53
Zinc	1410	J	4020		SD-10-01-ME	6 / 6	0.16 - 1.7	2191
Total Combustible Organics (mg/Kg)	97300		465000	J	SD-10-01-ME	5 / 5	2000	303360
Total Organic Carbon (mg/Kg)	680000		680000		SD-10-02-TR	1 / 1	250	680000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-56
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 11
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	200	J	200	J	SD-11-02-FW	1 / 2	28	107
Acetone						0 / 1	260	130
cis-1,2-Dichloroethene	170	J	170	J	SD-11-01-ME	1 / 1	57	170.0
Tetrachloroethene						0 / 2	28 - 171	49.8
Trichloroethene						0 / 2	28 - 103	32.8
SVOCs - ug/Kg								
2-Methylnaphthalene	16	J	16	J	SD-11-01-ME	1 / 2	1 - 910	236
Acenaphthylene	9	J	9	J	SD-11-01-ME	1 / 2	67 - 910	232
Anthracene	54	J	54	J	SD-11-01-ME	1 / 2	67 - 910	255
Benzo(a)anthracene	120	J	410		SD-11-01-ME	3 / 3	67	280
Benzo(a)pyrene	220	J	520		SD-11-01-ME	2 / 3	67 - 910	398
Benzo(b)fluoranthene	350	J	870	J	SD-11-02-FW	3 / 3	67	667
Benzo(g,h,i)perylene	260	J	300		SD-11-01-ME	2 / 3	67 - 910	338
Benzo(k)fluoranthene	330	J	840	J	SD-11-02-FW	3 / 3	67	630
Carbazole						0 / 1	910	455
Chrysene	180	J	670		SD-11-01-ME	3 / 3	67	417
Dibenz(a,h)anthracene	99		99		SD-11-01-ME	1 / 2	67 - 910	277
Dibenzofuran						0 / 1	910	455
Fluoranthene	300	J	1000		SD-11-01-ME	3 / 3	67	670
Fluorene	57	J	57	J	SD-11-01-ME	1 / 2	1 - 910	256
Indeno(1,2,3-cd)pyrene	270	J	360		SD-11-01-ME	2 / 3	67 - 910	362
Naphthalene	32	J	32	J	SD-11-01-ME	1 / 2	1 - 910	244
N-nitrosodiphenylamine	540	J	540	J	SD-11-02-FW	1 / 2	910	498
Phenanthrene	120	J	260		SD-11-01-ME	3 / 3	67	203
Pyrene	230	J	950		SD-11-01-ME	3 / 3	67	607
PCBs/Pesticides - ug/Kg								
4,4'-DDD	45	J	45	J	SD-11-01-ME	1 / 2	0.33 - 9.2	25
4,4'-DDE	0.76	J	15	J	SD-11-01-ME	3 / 3	0.33	8
4,4'-DDT	0.5	J	1.9	J	SD-11-01-ME	3 / 3	0.33	1
Aldrin	0.59	J	0.59	J	SD-11-03-FW	1 / 2	0.16	0.3
alpha-Chlordane	0.62	J	8.1	J	SD-11-01-ME	3 / 3	0.16	3.8
Aroclor 1248	180	J	180	J	SD-11-01-ME	1 / 2	3.3 - 92	113
Aroclor 1254						0 / 2	3.3 - 92	24
Aroclor 1260	61	J	230		SD-11-01-ME	2 / 3	3.3 - 92	112
beta-BHC						0 / 2	0.16 - 4.7	1.2
delta-BHC						0 / 2	0.16 - 4.7	1.2
Endosulfan I	0.44	J	0.44	J	SD-11-01-ME	1 / 2	0.16 - 4.7	1.4
Endosulfan Sulfate	0.72	J	0.72	J	SD-11-01-ME	1 / 2	0.33 - 9.2	2.7
Endrin Aldehyde	1.7	J	1.7	J	SD-11-01-ME	1 / 2	0.33 - 9.2	3.2
gamma-Chlordane	0.51	J	5.6	J	SD-11-01-ME	3 / 3	0.16	2.9
Metals - mg/Kg								
Aluminum	5090		12600	J	SD-11-01-ME	3 / 3	3.5	9297
Antimony	1.2		2.7		SD-11-03-FW	2 / 3	0.27 - 1.5	1.55
Arsenic	121		473	J	SD-11-03-FW	3 / 3	0.22	287
Barium	24.6		149		SD-11-01-ME	3 / 3	0.018	79
Beryllium	0.38		0.97	J	SD-11-01-ME	3 / 3	0.028	0.62
Cadmium	3.3		9.5		SD-11-01-ME	3 / 3	0.35	5.40
Chromium	303	J	900	J	SD-11-02-FW	3 / 3	0.055	507
Cobalt	8.1		25.3	J	SD-11-01-ME	3 / 3	0.38	17.7
Copper	172		402		SD-11-01-ME	3 / 3	0.083	286
Cyanide						0 / 2	0.97 - 2	0.74
Iron	23800		35800		SD-11-03-FW	3 / 3	0.57	30433
Lead	100	J	606	J	SD-11-01-ME	3 / 3	0.27	275
Manganese	221	J	1630	J	SD-11-03-FW	3 / 3	0.018	860
Mercury	1.1		3.7		SD-11-02-FW	3 / 3	0.0051	2.23
Nickel	9.3		32.8	J	SD-11-01-ME	3 / 3	0.15	19
Selenium	2.4		3.1		SD-11-02-FW	3 / 3	0.053	2.67
Silver	0.92	J	0.92	J	SD-11-01-ME	1 / 3	0.01 - 0.85	0.55
Thallium						0 / 3	0.039 - 2	0.66
Vanadium	16.3		58.8		SD-11-01-ME	3 / 3	0.074	33
Zinc	830	J	2260	J	SD-11-01-ME	3 / 3	0.17	1480
Total Combustible Organics (mg/Kg)	49900		387000	J	SD-11-01-ME	3 / 3	2000	185967
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-57
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 12
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	87	J	87	J	SD-12-02-FW	1 / 2	22	49
Acetone	370	J	370	J	SD-12-03-TR	1 / 2	56 - 89	199
cis-1,2-Dichloroethene	25	J	25	J	SD-12-03-ME	1 / 1	41	25.0
Tetrachloroethene						0 / 2	22 - 124	36.5
Trichloroethene						0 / 2	22 - 41	15.8
SVOCs - ug/Kg								
2-Methylnaphthalene	25	J	25	J	SD-12-03-ME	1 / 3	1 - 730	195
Acenaphthylene	23	J	23	J	SD-12-03-ME	1 / 3	1 - 730	194
Anthracene	79		79		SD-12-03-ME	1 / 3	67 - 730	213
Benzo(a)anthracene	140	J	420		SD-12-03-ME	5 / 5	67 - 390	256
Benzo(a)pyrene	160	J	520	J	SD-12-03-TR	5 / 5	67 - 390	316
Benzo(b)fluoranthene	350	J	960		SD-12-03-TR	5 / 5	67 - 390	658
Benzo(g,h,i)perylene	280	J	290		SD-12-03-ME	2 / 3	67 - 730	312
Benzo(k)fluoranthene	350	J	800	J	SD-12-01-FW	5 / 5	67 - 390	468
Carbazole						0 / 2	390 - 730	280
Chrysene	180	J	610		SD-12-03-ME	5 / 5	67 - 390	390
Dibenz(a,h)anthracene	150		150		SD-12-03-ME	1 / 3	2 - 730	237
Dibenzofuran						0 / 2	390 - 730	280
Fluoranthene	260	J	800	J	SD-12-01-FW	5 / 5	67 - 390	586
Fluorene	78	J	78	J	SD-12-03-ME	1 / 3	1 - 730	213
Indeno(1,2,3-cd)pyrene	79	J	330		SD-12-03-ME	4 / 4	67 - 390	207
Naphthalene	120	J	120	J	SD-12-03-ME	1 / 3	1 - 730	227
N-nitrosodiphenylamine	100	J	100	J	SD-12-03-FW	1 / 2	390	148
Phenanthrene	230	J	460		SD-12-03-ME	3 / 4	67 - 730	324
Pyrene	220	J	770	J	SD-12-01-FW	5 / 5	67 - 390	546
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.9		2.4	J	SD-12-03-FW	2 / 3	0.32 - 3.1	2
4,4'-DDE	0.52	J	4.4	J	SD-12-03-FW	5 / 5	0.32 - 3.1	2
4,4'-DDT	0.53	J	1.1	J	SD-12-03-ME	2 / 4	0.32 - 7.3	2
Aldrin	0.51	J	0.51	J	SD-12-03-FW	1 / 3	0.16 - 1.6	0.5
alpha-Chlordane	1.1	J	1.8	J	SD-12-03-FW	3 / 4	0.16 - 1.6	1.3
Aroclor 1248	15	J	15	J	SD-12-03-ME	1 / 3	3.2 - 73	22
Aroclor 1254						0 / 3	3.2 - 73	18
Aroclor 1260	18		18		SD-12-03-ME	1 / 3	3.2 - 73	23
beta-BHC	0.71	J	1.7	J	SD-12-01-FW	2 / 5	0.16 - 3.8	1.0
delta-BHC						0 / 3	0.16 - 3.8	0.9
Endosulfan I	0.62	J	0.62	J	SD-12-03-FW	1 / 3	0.16 - 1.6	0.5
Endosulfan Sulfate						0 / 3	0.32 - 7.3	1.8
Endrin Aldehyde	0.87	J	1	J	SD-12-03-FW	2 / 3	0.32 - 3.1	1.1
gamma-Chlordane	0.34	J	1.7	J	SD-12-03-FW	4 / 5	0.16 - 1.6	1.0
Metals - mg/Kg								
Aluminum	4560		27500		SD-12-03-ME	5 / 5	3.7 - 9.14	13136
Antimony	19.2		117	J	SD-12-03-ME	3 / 4	0.28 - 0.95	39.77
Arsenic	38.4		4550		SD-12-03-ME	5 / 5	0.23 - 1	1437
Barium	19.6		121		SD-12-03-TR	5 / 5	0.019 - 0.4	52
Beryllium	0.55		1.7		SD-12-03-ME	3 / 4	0.029 - 0.49	0.95
Cadmium	1.3		13.5		SD-12-03-TR	5 / 5	0.039 - 0.6	6.44
Chromium	42.1	J	1310		SD-12-03-TR	5 / 5	0.058 - 1	550
Cobalt	11		38.1		SD-12-03-ME	5 / 5	0.36 - 0.4	25.8
Copper	40.5		1980		SD-12-03-ME	5 / 5	0.088 - 0.44	643
Cyanide						0 / 2	1.1 - 1.2	0.58
Iron	7530		107000		SD-12-03-ME	5 / 5	0.6 - 1.4	56406
Lead	16.8		1220		SD-12-03-ME	5 / 5	0.28 - 0.6	387
Manganese	195	J	1180		SD-12-03-TR	5 / 5	0.019 - 0.24	519
Mercury	0.15	J	44.8		SD-12-03-ME	4 / 5	0.0037 - 0.17	10.08
Nickel	5.4		28.1		SD-12-03-TR	5 / 5	0.16 - 0.8	16
Selenium	1.3		30.3		SD-12-03-ME	4 / 5	0.43 - 1	8.72
Silver	1.2	J	1.8		SD-12-03-TR	2 / 4	0.01 - 1	0.88
Thallium	1.4		1.4		SD-12-03-FW	1 / 4	0.046 - 1.5	0.85
Vanadium	10.8		127		SD-12-03-ME	5 / 5	0.078 - 0.64	51
Zinc	1370		4760		SD-12-03-ME	5 / 5	0.18 - 1.7	2488
Total Combustible Organics (mg/Kg)	42200		431000	J	SD-12-03-ME	4 / 4	2000	187800
Total Organic Carbon (mg/Kg)	150000	J	150000	J	SD-12-03-TR	1 / 1	250	150000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-58
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 13
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	160	J	190	J	SD-13-01-FW	2 / 3	22	120
Acetone	630	J	4300	J	SD-13-01-TR	2 / 2	22	2465
cis-1,2-Dichloroethene	23	J	23	J	SD-13-03-ME	1 / 3	22 - 35	17.2
Tetrachloroethene						0 / 3	22 - 108	37.8
Trichloroethene	37	J	37	J	SD-13-03-ME	1 / 3	22 - 35	21.8
SVOCs - ug/Kg								
2-Methylnaphthalene	23	J	73		SD-13-01-ME	2 / 3	67 - 280	79
Acenaphthylene	26	J	31	J	SD-13-01-ME	2 / 3	67 - 280	66
Anthracene	99		300		SD-13-01-ME	2 / 3	67 - 280	180
Benzo(a)anthracene	110	J	1700		SD-13-01-ME	6 / 6	67 - 280	825
Benzo(a)pyrene	150	J	1700		SD-13-01-ME	6 / 6	67 - 280	908
Benzo(b)fluoranthene	270	J	3600	J	SD-13-03-FW	6 / 6	67 - 280	1662
Benzo(g,h,i)perylene	260	J	820		SD-13-01-ME	5 / 6	67 - 280	412
Benzo(k)fluoranthene	570	J	3400	J	SD-13-03-FW	5 / 6	67 - 280	1310
Carbazole	170	J	170	J	SD-13-03-FW	1 / 2	280	155
Chrysene	150	J	1700		SD-13-01-ME	6 / 6	67 - 280	1017
Dibenz(a,h)anthracene	180		330	J	SD-13-01-FW	3 / 4	67 - 280	218
Dibenzofuran						0 / 1	280	140
Fluoranthene	230	J	5200		SD-13-01-ME	6 / 6	67 - 280	2188
Fluorene	67	J	220		SD-13-01-ME	2 / 3	67 - 280	142
Indeno(1,2,3-cd)pyrene	590	J	1000		SD-13-01-ME	5 / 6	67 - 280	643
Naphthalene	40	J	67	J	SD-13-01-ME	2 / 3	67 - 280	82
N-nitrosodiphenylamine						0 / 1	280	140
Phenanthrene	450	J	2700		SD-13-01-ME	5 / 6	67 - 280	945
Pyrene	230	J	4000		SD-13-01-ME	6 / 6	67 - 280	1672
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.3	J	310		SD-13-03-ME	6 / 6	0.31 - 3.3	59
4,4'-DDE	1.6	J	130		SD-13-03-ME	6 / 6	0.31 - 3.3	28
4,4'-DDT	0.45	J	12	J	SD-13-03-ME	5 / 6	0.31 - 3.3	4
Aldrin	0.47	J	1.6	J	SD-13-03-FW	3 / 6	0.16 - 1.6	0.8
alpha-Chlordane	3.2	J	93		SD-13-03-ME	5 / 6	0.16 - 1.6	24.9
Aroclor 1248	25	J	170	J	SD-13-03-ME	2 / 3	3.1 - 22	69
Aroclor 1254	45		45		SD-13-01-TR	1 / 3	3.1 - 22	16
Aroclor 1260	79		310	J	SD-13-03-FW	3 / 4	3.1 - 22	163
beta-BHC	1.5	J	3.1	J	SD-13-03-FW	3 / 6	0.16 - 1.6	1.4
delta-BHC	15	J	15	J	SD-13-03-ME	1 / 3	0.16 - 1.6	5.2
Endosulfan I						0 / 3	0.16 - 1.6	0.5
Endosulfan Sulfate	0.38	J	0.38	J	SD-13-01-ME	1 / 3	0.31 - 3.3	1.0
Endrin Aldehyde	2.2	J	10	J	SD-13-03-FW	4 / 5	0.31 - 3.3	4.7
gamma-Chlordane	1	J	650	J	SD-13-03-ME	5 / 6	0.16 - 1.6	114.8
Metals - mg/Kg								
Aluminum	6430	J	34400	J	SD-13-02-FW	6 / 6	3.5 - 9.14	21638
Antimony	1.7	J	61	J	SD-13-01-FW	5 / 5	0.27 - 0.74	23.40
Arsenic	15.9		4210	J	SD-13-01-FW	6 / 6	0.22 - 1	1267
Barium	63.8		155	J	SD-13-03-FW	6 / 6	0.018 - 0.4	103
Beryllium	0.45	J	2	J	SD-13-02-FW	6 / 6	0.027 - 0.2	1.31
Cadmium	3.1		13.8	J	SD-13-01-FW	6 / 6	0.35 - 0.6	8.27
Chromium	61.2	J	725	J	SD-13-02-FW	6 / 6	0.055 - 1	513
Cobalt	7.2	J	40.7	J	SD-13-03-FW	6 / 6	0.36 - 0.38	18.9
Copper	113		2340	J	SD-13-01-FW	6 / 6	0.082 - 0.44	1015
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	12800	J	54700	J	SD-13-01-FW	6 / 6	0.57 - 1.4	41217
Lead	340	J	1270	J	SD-13-01-FW	6 / 6	0.27 - 0.6	871
Manganese	123		1050	J	SD-13-02-FW	6 / 6	0.018 - 0.24	664
Mercury	0.25	J	19.5	J	SD-13-01-FW	6 / 6	0.005 - 0.02	7.47
Nickel	15.9	J	53.4	J	SD-13-03-FW	6 / 6	0.15 - 0.8	26
Selenium	0.53	J	26.3	J	SD-13-01-FW	5 / 6	0.053 - 1	9.89
Silver	0.21	J	2	J	SD-13-01-FW	4 / 6	0.01 - 2	0.91
Thallium	3.2	J	3.7	J	SD-13-01-FW	2 / 5	0.039 - 1.14	1.58
Vanadium	27.4		120	J	SD-13-03-FW	6 / 6	0.073 - 0.64	75
Zinc	445	J	2670	J	SD-13-03-FW	6 / 6	0.16 - 1.7	1681
Total Combustible Organics (mg/Kg)	118000	J	385000		SD-13-02-FW	5 / 5	2000	239600
Total Organic Carbon (mg/Kg)	300000		300000		SD-13-01-TR	1 / 1	250	300000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-59
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 14
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone						0 / 3	12 - 14	6
Acetone	58	J	140	J	SD-14-01-FW	2 / 3	12	68
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 3	12 - 14	6.3
Trichloroethene						0 / 3	12 - 14	6.3
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 3	2100 - 2300	1083
Acenaphthylene						0 / 3	2100 - 2300	1083
Anthracene	660	J	660	J	SD-14-01-FW	1 / 3	2100 - 2300	953
Benzo(a)anthracene	700	J	1100	J	SD-14-01-FW	3 / 3	N/A	967
Benzo(a)pyrene	890	J	890	J	SD-14-03-FW	1 / 3	2100	997
Benzo(b)fluoranthene	920	J	2100	J	SD-14-03-FW	3 / 3	N/A	1440
Benzo(g,h,i)perylene						0 / 3	2100 - 2300	1083
Benzo(k)fluoranthene	1100	J	1100	J	SD-14-01-FW	1 / 3	2100 - 2300	1100
Carbazole						0 / 3	2100 - 2300	1083
Chrysene	910	J	1400	J	SD-14-03-FW	3 / 3	N/A	1170
Dibenz(a,h)anthracene						0 / 3	2100 - 2300	1083
Dibenzofuran						0 / 3	2100 - 2300	1083
Fluoranthene	2200	J	2800	J	SD-14-03-FW	3 / 3	N/A	2467
Fluorene						0 / 3	2100 - 2300	1083
Indeno(1,2,3-cd)pyrene						0 / 3	2100 - 2300	1083
Naphthalene						0 / 3	2100 - 2300	1083
N-nitrosodiphenylamine						0 / 3	2100 - 2300	1083
Phenanthrene	810	J	2600	J	SD-14-01-FW	3 / 3	N/A	1503
Pyrene	1200	J	2000	J	SD-14-03-FW	3 / 3	N/A	1667
PCBs/Pesticides - ug/Kg								
4,4'-DDD	9.7	J	9.7	J	SD-14-01-FW	1 / 3	21 - 23	11
4,4'-DDE	8.2	J	8.2	J	SD-14-01-FW	1 / 3	21 - 23	10
4,4'-DDT						0 / 3	21 - 23	11
Aldrin						0 / 3	11 - 12	5.7
alpha-Chlordane	3.3	J	5	J	SD-14-03-FW	3 / 3	N/A	4.1
Aroclor 1248						0 / 3	210 - 230	108
Aroclor 1254						0 / 3	210 - 230	108
Aroclor 1260						0 / 3	210 - 230	108
beta-BHC						0 / 3	11 - 12	5.7
delta-BHC						0 / 3	11 - 12	5.7
Endosulfan I	8	J	18	J	SD-14-03-FW	3 / 3	N/A	11.4
Endosulfan Sulfate						0 / 3	21 - 23	10.8
Endrin Aldehyde						0 / 3	21 - 23	10.8
gamma-Chlordane						0 / 3	11 - 12	5.7
Metals - mg/Kg								
Aluminum	3200		4030		SD-14-01-FW	3 / 3	N/A	3687
Antimony	0.85	J	0.99	J	SD-14-01-FW	3 / 3	N/A	0.91
Arsenic	49.1		73.4		SD-14-03-FW	3 / 3	N/A	61
Barium	13.4		18.4		SD-14-03-FW	3 / 3	N/A	16
Beryllium	0.21		0.21		SD-14-01-FW	1 / 3	0.19 - 0.2	0.14
Cadmium	0.4		1		SD-14-03-FW	3 / 3	N/A	0.64
Chromium	43	J	216		SD-14-01-FW	3 / 3	N/A	104
Cobalt	2.9		5		SD-14-01-FW	3 / 3	N/A	4.1
Copper	46		64.9		SD-14-02-FW	3 / 3	N/A	57
Cyanide						0 / 3	0.51 - 0.62	0.29
Iron	9030		19400	J	SD-14-01-FW	3 / 3	N/A	14010
Lead	34.5		130	J	SD-14-01-FW	3 / 3	N/A	68
Manganese	84.9	J	172	J	SD-14-03-FW	3 / 3	N/A	133
Mercury	0.16	J	1.4	J	SD-14-02-FW	3 / 3	N/A	0.59
Nickel	5.4		10.4		SD-14-01-FW	3 / 3	N/A	7
Selenium	0.61		0.73	J	SD-14-01-FW	2 / 3	0.61	0.55
Silver						0 / 3	0.26 - 0.3	0.14
Thallium	0.81		0.81		SD-14-01-FW	1 / 3	0.61 - 0.71	0.49
Vanadium	8.9		13.3		SD-14-01-FW	3 / 3	N/A	11
Zinc	170		273		SD-14-03-FW	3 / 3	N/A	221
Total Combustible Organics (mg/Kg)	4480		12300		SD-14-03-FW	3 / 3	N/A	9260
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-60
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 15
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	210	J	290	J	SD-15-02-FW	2 / 2	N/A	250
cis-1,2-Dichloroethene	187	J	187	J	SD-15-01-ME	1 / 1	63	187.0
Tetrachloroethene	41	J	41	J	SD-15-03-FW	1 / 2	190	68.0
Trichloroethene	26	J	206	J	SD-15-01-ME	3 / 3	63	93.3
SVOCs - ug/Kg								
2-Methylnaphthalene	10	J	10	J	SD-15-01-ME	1 / 1	1	10
Acenaphthylene	7	J	7	J	SD-15-01-ME	1 / 1	1	7
Anthracene	50	J	50	J	SD-15-01-ME	1 / 1	67	50
Benzo(a)anthracene	200		200		SD-15-01-ME	1 / 1	67	200
Benzo(a)pyrene	180	J	180	J	SD-15-01-ME	1 / 1	67	180
Benzo(b)fluoranthene	440	J	440	J	SD-15-01-ME	1 / 1	67	440
Benzo(g,h,i)perylene	150	J	150	J	SD-15-01-ME	1 / 1	67	150
Benzo(k)fluoranthene	270	J	270	J	SD-15-01-ME	1 / 1	67	270
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	410		410		SD-15-01-ME	1 / 1	67	410
Dibenz(a,h)anthracene	60	J	60	J	SD-15-01-ME	1 / 1	67	60
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	990		990		SD-15-01-ME	1 / 1	67	990
Fluorene	69	J	69	J	SD-15-01-ME	1 / 1	1	69
Indeno(1,2,3-cd)pyrene	170	J	170	J	SD-15-01-ME	1 / 1	67	170
Naphthalene	15	J	15	J	SD-15-01-ME	1 / 1	67	15
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	400		400		SD-15-01-ME	1 / 1	67	400
Pyrene	590		590		SD-15-01-ME	1 / 1	67	590
PCBs/Pesticides - ug/Kg								
4,4'-DDD	6.9	J	6.9	J	SD-15-01-ME	1 / 1	0.33	7
4,4'-DDE	3.8	J	3.8	J	SD-15-01-ME	1 / 1	0.33	4
4,4'-DDT	1.8	J	1.8	J	SD-15-01-ME	1 / 1	0.33	2
Aldrin						0 / 1	0.17	0.1
alpha-Chlordane	6	J	6	J	SD-15-01-ME	1 / 1	0.17	6.0
Aroclor 1248	43	J	43	J	SD-15-01-ME	1 / 1	3.3	43
Aroclor 1254						0 / 1	3.3	2
Aroclor 1260	83		83		SD-15-01-ME	1 / 1	3.3	83
beta-BHC						0 / 1	0.17	0.1
delta-BHC						0 / 1	0.17	0.1
Endosulfan I	0.45	J	15	J	SD-15-03-FW	4 / 4	0.17	7.6
Endosulfan Sulfate						0 / 1	0.33	0.2
Endrin Aldehyde	2	J	2	J	SD-15-01-ME	1 / 1	0.33	2.0
gamma-Chlordane	0.98	J	0.98	J	SD-15-01-ME	1 / 1	0.17	1.0
Metals - mg/Kg								
Aluminum	4810	J	6670	J	SD-15-02-FW	4 / 4	8.2	5960
Antimony	3.9	J	6	J	SD-15-02-FW	3 / 3	0.3	4.63
Arsenic	104	J	193	J	SD-15-01-FW	4 / 4	0.51	167
Barium	48.9	J	65.6		SD-15-01-ME	4 / 4	0.043	57
Beryllium	0.76	J	1.1	J	SD-15-03-FW	2 / 2	0.064	0.93
Cadmium	17.7		37.4	J	SD-15-01-FW	4 / 4	0.81	28.13
Chromium	147	J	537	J	SD-15-01-ME	4 / 4	0.13	268
Cobalt	14.1	J	23.1	J	SD-15-01-ME	4 / 4	0.88	17.8
Copper	181	J	469	J	SD-15-03-FW	4 / 4	0.19	352
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	11800	J	22200	J	SD-15-01-FW	4 / 4	1.3	17125
Lead	55.4	J	157	J	SD-15-01-ME	4 / 4	0.62	100
Manganese	956		1400	J	SD-15-01-FW	4 / 4	0.043	1111
Mercury	0.68	J	1.3	J	SD-15-01-ME	3 / 3	0.0059	0.90
Nickel	9.6	J	20.5	J	SD-15-03-FW	4 / 4	0.34	17
Selenium	6.5	J	8.6	J	SD-15-02-FW	2 / 3	0.24 - 1.2	5.23
Silver	0.29	J	0.29	J	SD-15-01-ME	1 / 1	0.043	0.29
Thallium	2.4	J	2.4	J	SD-15-01-ME	1 / 1	0.17	2.40
Vanadium	14.2	J	22.9	J	SD-15-02-FW	4 / 4	0.17	20
Zinc	1990	J	3350	J	SD-15-01-FW	4 / 4	0.39	2623
Total Combustible Organics (mg/Kg)	381000		702000	J	SD-15-01-ME	4 / 4	2000	491250
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-61
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 16
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone						0 / 3	13 - 26	9
Acetone						0 / 3	24 - 26	13
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene						0 / 3	13 - 26	8.7
Trichloroethene						0 / 3	13 - 26	8.7
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 3	420 - 840	280
Acenaphthylene						0 / 3	420 - 840	280
Anthracene						0 / 3	420 - 840	280
Benzo(a)anthracene						0 / 3	420 - 840	280
Benzo(a)pyrene						0 / 3	420 - 840	280
Benzo(b)fluoranthene	45	J	45	J	SD-16-03-FW	1 / 3	420 - 840	225
Benzo(g,h,i)perylene						0 / 3	420 - 840	280
Benzo(k)fluoranthene	45	J	45	J	SD-16-03-FW	1 / 3	420 - 840	225
Carbazole						0 / 3	420 - 840	280
Chrysene						0 / 3	420 - 840	280
Dibenz(a,h)anthracene						0 / 3	420 - 840	280
Dibenzofuran						0 / 3	420 - 840	280
Fluoranthene	50	J	88	J	SD-16-01-FW	2 / 3	420	116
Fluorene						0 / 3	420 - 840	280
Indeno(1,2,3-cd)pyrene						0 / 3	420 - 840	280
Naphthalene						0 / 3	420 - 840	280
N-nitrosodiphenylamine						0 / 3	420 - 840	280
Phenanthrene						0 / 3	420 - 840	280
Pyrene	61	J	110	J	SD-16-01-FW	2 / 3	420	127
PCBs/Pesticides - ug/Kg								
4,4'-DDD	11		13		SD-16-02-FW	2 / 3	4.2	9
4,4'-DDE	0.32	J	3.6	J	SD-16-02-FW	3 / 3	N/A	2
4,4'-DDT	0.32	J	6.8		SD-16-02-FW	3 / 3	N/A	3
Aldrin						0 / 3	2.1 - 4.3	1.4
alpha-Chlordane	0.45	J	0.67	J	SD-16-01-FW	2 / 3	4.2	1.1
Aroclor 1248						0 / 3	42 - 84	28
Aroclor 1254						0 / 3	42 - 84	28
Aroclor 1260						0 / 3	42 - 84	28
beta-BHC						0 / 3	2.1 - 4.3	1.4
delta-BHC	0.29	J	0.29	J	SD-16-02-FW	1 / 3	2.2 - 4.3	1.2
Endosulfan I						0 / 3	2.1 - 4.3	1.4
Endosulfan Sulfate						0 / 3	4.2 - 8.4	2.8
Endrin Aldehyde						0 / 3	4.2 - 8.4	2.8
gamma-Chlordane	0.12	J	0.72	J	SD-16-01-FW	3 / 3	N/A	0.4
Metals - mg/Kg								
Aluminum	2480		3690		SD-16-02-FW	3 / 3	N/A	2990
Antimony	0.56	J	0.56	J	SD-16-01-FW	1 / 3	0.34 - 0.56	0.34
Arsenic	6.4	J	13.6		SD-16-01-FW	3 / 3	N/A	11
Barium	10.6		21.2		SD-16-03-FW	3 / 3	N/A	15
Beryllium	0.12		0.12		SD-16-02-FW	1 / 3	0.016 - 0.12	0.06
Cadmium	0.1		0.34		SD-16-02-FW	3 / 3	N/A	0.21
Chromium	3.3	J	38.4	J	SD-16-02-FW	3 / 3	N/A	21
Cobalt	2.9		5.2		SD-16-03-FW	3 / 3	N/A	4.0
Copper	7.1		32.5		SD-16-02-FW	3 / 3	N/A	21
Cyanide						0 / 3	0.41 - 0.6	0.25
Iron	4860		6850		SD-16-02-FW	3 / 3	N/A	5607
Lead	1.9	J	15.4	J	SD-16-02-FW	3 / 3	N/A	9
Manganese	84	J	158	J	SD-16-02-FW	3 / 3	N/A	112
Mercury	0.13		0.37	J	SD-16-01-FW	2 / 3	0.046	0.17
Nickel	1.6		5.7		SD-16-02-FW	3 / 3	N/A	4
Selenium						0 / 3	0.43 - 0.7	0.28
Silver						0 / 3	0.21 - 0.35	0.14
Thallium						0 / 3	0.5 - 0.82	0.33
Vanadium	4.2		10.3		SD-16-02-FW	3 / 3	N/A	7
Zinc	36.4	J	155	J	SD-16-02-FW	3 / 3	N/A	90
Total Combustible Organics (mg/Kg)	1390		3040		SD-16-03-FW	2 / 3	125	1498
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-62
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 18
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	65	J	120	J	SD-11-01-FW	2 / 3	18	65
Acetone	230	J	385	J	SD-18-02-TR	3 / 5	47 - 430	243
cis-1,2-Dichloroethene	37	J	37	J	SD-18-02-ME	1 / 2	59 - 76	37.5
Tetrachloroethene						0 / 4	18 - 229	56.5
Trichloroethene						0 / 4	18 - 76	22.5
SVOCs - ug/Kg								
2-Methylnaphthalene	15	J	21	J	SD-18-03-ME	2 / 5	67 - 890	197
Acenaphthylene	16	J	23	J	SD-18-03-ME	2 / 5	67 - 890	198
Anthracene	130		150		SD-18-02-ME	2 / 5	67 - 890	246
Benzo(a)anthracene	1400		1400		SD-18-03-ME	2 / 5	67 - 890	750
Benzo(a)pyrene	1900	J	1900	J	SD-18-03-ME	2 / 4	67 - 890	1136
Benzo(b)fluoranthene	120	J	2500	J	SD-18-02-ME	4 / 5	67 - 600	1100
Benzo(g,h,i)perylene	1400		1600	J	SD-18-03-ME	2 / 5	67 - 890	790
Benzo(k)fluoranthene	110	J	1200	J	SD-18-02-ME	4 / 5	67 - 600	588
Carbazole						0 / 3	410 - 890	317
Chrysene	2000		2200		SD-18-02-ME	2 / 5	67 - 890	1030
Dibenz(a,h)anthracene	410	J	430		SD-18-02-ME	2 / 5	67 - 890	358
Dibenzofuran						0 / 3	410 - 890	317
Fluoranthene	220	J	4000		SD-18-02-ME	3 / 5	67 - 890	1613
Fluorene	94		110		SD-18-02-ME	2 / 5	67 - 890	231
Indeno(1,2,3-cd)pyrene	1400		1500	J	SD-18-03-ME	2 / 5	67 - 890	770
Naphthalene	29	J	34	J	SD-18-03-ME	2 / 5	67 - 890	203
N-nitrosodiphenylamine	410	J	410	J	SD-11-01-FW	1 / 3	410 - 600	305
Phenanthrene	1200		1400		SD-18-02-ME	2 / 5	67 - 890	710
Pyrene	100	J	3100		SD-18-02-ME	4 / 5	67 - 600	1260
PCBs/Pesticides - ug/Kg								
4,4'-DDD	4.9	J	23	J	SD-18-02-ME	3 / 6	0.33 - 8.9	7
4,4'-DDE	0.83	J	30		SD-18-03-ME	5 / 6	0.33 - 3.2	11
4,4'-DDT	0.66	J	1.7	J	SD-18-03-ME	3 / 5	0.33 - 6.1	2
Aldrin						0 / 5	0.16 - 4.6	1.0
alpha-Chlordane	7.7	J	17	J	SD-18-03-ME	2 / 5	0.16 - 6.1	6.2
Aroclor 1248	60	J	170	J	SD-18-03-ME	2 / 5	3.3 - 89	64
Aroclor 1254						0 / 5	3.3 - 89	19
Aroclor 1260	17	J	190		SD-18-03-ME	3 / 5	3.3 - 61	69
beta-BHC						0 / 5	0.16 - 4.6	1.0
delta-BHC						0 / 5	0.16 - 4.6	1.0
Endosulfan I						0 / 5	0.16 - 4.6	1.0
Endosulfan Sulfate	0.41	J	0.41	J	SD-18-03-ME	1 / 5	0.33 - 8.9	1.9
Endrin Aldehyde	2.4	J	3.6	J	SD-18-03-ME	2 / 5	0.33 - 8.9	3.0
gamma-Chlordane	0.17	J	26	J	SD-18-03-ME	4 / 5	0.16 - 1.6	5.8
Metals - mg/Kg								
Aluminum	3970		24100		SD-18-03-ME	7 / 7	3.5 - 9.14	14317
Antimony	1.1	J	26.9		SD-18-02-TR	7 / 7	0.27 - 0.74	10.54
Arsenic	34.9		1490		SD-18-02-TR	7 / 7	0.22 - 1	721
Barium	12.3		169		SD-18-03-ME	7 / 7	0.018 - 0.4	82
Beryllium	0.67	J	2.3		SD-18-03-ME	6 / 7	0.02 - 0.44	1.26
Cadmium	1.9		16		SD-18-03-ME	7 / 7	0.037 - 0.6	11.09
Chromium	109	J	4340		SD-18-03-ME	7 / 7	0.055 - 1	1719
Cobalt	3.5		54.9		SD-18-03-ME	7 / 7	0.36 - 0.38	26.6
Copper	158		1310		SD-18-03-ME	7 / 7	0.082 - 0.44	838
Cyanide						0 / 2	1.1 - 1.3	0.60
Iron	4460		120000		SD-18-02-TR	7 / 7	0.57 - 1.4	55680
Lead	55.4		678		SD-18-03-ME	7 / 7	0.27 - 0.6	354
Manganese	93	J	1740		SD-18-02-TR	7 / 7	0.018 - 0.24	846
Mercury	0.35		7.5		SD-18-02-ME	7 / 7	0.005 - 0.24	3.73
Nickel	4.6		46.7		SD-18-03-ME	7 / 7	0.15 - 0.8	23
Selenium	1.8		9	J	SD-18-03-ME	5 / 6	0.4 - 1	5.40
Silver	0.62	J	0.74	J	SD-18-02-ME	2 / 5	0.01 - 1	0.50
Thallium						0 / 5	0.043 - 1.9	0.70
Vanadium	8.9		95.9		SD-18-03-ME	7 / 7	0.073 - 0.64	46
Zinc	420		4020		SD-18-02-ME	7 / 7	0.16 - 1.7	2367
Total Combustible Organics (mg/Kg)	36700		423000	J	SD-18-03-ME	6 / 6	2000	233800
Total Organic Carbon (mg/Kg)	300000	J	300000	J	SD-18-02-TR	1 / 1	250	300000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-63
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 19
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	160	J	290	J	SD-19-01-FW	2 / 2	N/A	225
Acetone	310	J	310	J	SD-19-01-TR	1 / 1	51	310
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 1	400	200
Acenaphthylene						0 / 1	400	200
Anthracene						0 / 1	400	200
Benzo(a)anthracene	200	J	245	J	SD-19-01-FW	2 / 3	400	215
Benzo(a)pyrene	210	J	295	J	SD-19-01-FW	3 / 3	400	258
Benzo(b)fluoranthene	410		935	J	SD-19-01-FW	3 / 3	400	682
Benzo(g,h,i)perylene						0 / 1	400	200
Benzo(k)fluoranthene	400	J	910	J	SD-19-01-FW	3 / 3	400	663
Carbazole						0 / 1	400	200
Chrysene	210	J	365	J	SD-19-01-FW	3 / 3	400	292
Dibenz(a,h)anthracene						0 / 1	400	200
Dibenzofuran						0 / 1	400	200
Fluoranthene	280	J	510	J	SD-19-01-FW	3 / 3	400	403
Fluorene						0 / 1	400	200
Indeno(1,2,3-cd)pyrene	180	J	180	J	SD-19-01-FW	1 / 2	400	190
Naphthalene						0 / 1	400	200
N-nitrosodiphenylamine						0 / 1	400	200
Phenanthrene						0 / 1	400	200
Pyrene	270	J	415	J	SD-19-01-FW	3 / 3	400	342
PCBs/Pesticides - ug/Kg								
4,4'-DDD	2.5	J	11	J	SD-19-03-FW	3 / 4	3.1	6
4,4'-DDE	1.6	J	20	J	SD-19-03-FW	4 / 4	3.1	9
4,4'-DDT	1.95	J	3.4	J	SD-19-02-FW	3 / 4	3.1	2
Aldrin	0.67	J	0.67	J	SD-19-01-FW	1 / 2	1.6	0.7
alpha-Chlordane	2.1	J	4.65	J	SD-19-01-FW	3 / 4	1.6	3.0
Aroclor 1248						0 / 1	31	16
Aroclor 1254						0 / 1	31	16
Aroclor 1260						0 / 1	31	16
beta-BHC	2.2	J	2.35	J	SD-19-01-FW	2 / 3	1.6	1.8
delta-BHC						0 / 1	1.6	0.8
Endosulfan I	0.72	J	1.065	J	SD-19-01-FW	2 / 3	1.6	0.9
Endosulfan Sulfate						0 / 1	3.1	1.6
Endrin Aldehyde	1.6	J	2.4	J	SD-19-03-FW	2 / 3	3.1	1.9
gamma-Chlordane	2.7	J	4.8	J	SD-19-01-FW	3 / 4	1.6	3.2
Metals - mg/Kg								
Aluminum	6240	J	19750	J	SD-19-01-FW	4 / 4	9.14	11463
Antimony	3.9	J	23.15	J	SD-19-01-FW	4 / 4	0.74	13.16
Arsenic	180	J	4250		SD-19-01-TR	4 / 4	1	2518
Barium	40.1	J	205		SD-19-01-TR	4 / 4	0.4	106
Beryllium	0.68	J	1.7	J	SD-19-01-FW	3 / 3	0.2	1.23
Cadmium	8.3		18.9	J	SD-19-03-FW	4 / 4	0.6	12.84
Chromium	93.7	J	2335	J	SD-19-01-FW	4 / 4	1	1209
Cobalt	12.8	J	45.05	J	SD-19-01-FW	4 / 4	0.36	27.9
Copper	98.6	J	1330	J	SD-19-01-FW	4 / 4	0.44	656
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	14400	J	258000		SD-19-01-TR	4 / 4	1.4	131325
Lead	35.8	J	639	J	SD-19-01-FW	4 / 4	0.6	302
Manganese	412	J	2020		SD-19-01-TR	4 / 4	0.24	1068
Mercury	0.48	J	7.1	J	SD-19-01-FW	3 / 4	0.02 - 0.11	2.31
Nickel	11.1	J	33.55	J	SD-19-01-FW	3 / 4	0.8	16
Selenium	2.5	J	13.05	J	SD-19-01-FW	3 / 4	1	6.29
Silver						0 / 1	1	0.50
Thallium						0 / 1	1.1	0.55
Vanadium	10.5	J	92.65	J	SD-19-01-FW	4 / 4	0.64	47
Zinc	1600	J	2960	J	SD-19-01-FW	4 / 4	1.7	2128
Total Combustible Organics (mg/Kg)	323500		380000		SD-19-02-FW	3 / 3	N/A	355500
Total Organic Carbon (mg/Kg)	290000	J	290000	J	SD-19-01-TR	1 / 1	250	290000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-64
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 20[1]
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	107.5	J	107.5	J	SD-20-01-FW	1 / 1	N/A	108
Acetone	94	J	590	J	SD-20-01-FW	2 / 2	N/A	342
cis-1,2-Dichloroethene	562	J	562	J	SD-20-01-ME	1 / 1	114	562.0
Tetrachloroethene						0 / 1	790	395.0
Trichloroethene	2025	J	2025	J	SD-20-01-ME	1 / 1	114	2025.0
SVOCs - ug/Kg								
2-Methylnaphthalene	13	J	13	J	SD-20-01-ME	1 / 1	1	13
Acenaphthylene	6	J	6	J	SD-20-01-ME	1 / 1	1	6
Anthracene	26	J	26	J	SD-20-01-ME	1 / 1	67	26
Benzo(a)anthracene	210		1100	J	SD-20-02-FW	3 / 3	67	770
Benzo(a)pyrene	290	J	1200	J	SD-20-02-FW	3 / 3	67	740
Benzo(b)fluoranthene	330		3700	J	SD-20-02-FW	4 / 4	67	2161
Benzo(g,h,i)perylene	210	J	210	J	SD-20-01-ME	1 / 1	67	210
Benzo(k)fluoranthene	370		370		SD-20-01-ME	1 / 1	67	370
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	400		1500	J	SD-20-03-FW	3 / 3	67	1100
Dibenz(a,h)anthracene	97	J	97	J	SD-20-01-ME	1 / 1	67	97
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	720		3000	J	SD-20-02-FW	4 / 4	67	1848
Fluorene	36	J	36	J	SD-20-01-ME	1 / 1	1	36
Indeno(1,2,3-cd)pyrene	210	J	830	J	SD-20-02-FW	2 / 2	67	520
Naphthalene	14	J	14	J	SD-20-01-ME	1 / 1	67	14
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	240		890	J	SD-20-02-FW	3 / 3	67	593
Pyrene	540	J	2500	J	SD-20-02-FW	3 / 3	67	1480
PCBs/Pesticides - ug/Kg								
4,4'-DDD	8.4	J	32	J	SD-20-02-FW	4 / 4	0.31	20
4,4'-DDE	4.4		32	J	SD-20-02-FW	4 / 4	0.31	20
4,4'-DDT	4.6	J	4.6	J	SD-20-01-ME	1 / 1	0.31	5
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	12	J	49	J	SD-20-03-FW	4 / 4	0.16	29.4
Aroclor 1248	28	J	28	J	SD-20-01-ME	1 / 1	3.1	28
Aroclor 1254						0 / 1	3.1	2
Aroclor 1260	79		79		SD-20-01-ME	1 / 1	3.1	79
beta-BHC						0 / 1	0.16	0.1
delta-BHC						0 / 1	0.16	0.1
Endosulfan I	38	J	42	J	SD-20-03-FW	2 / 3	0.16	26.7
Endosulfan Sulfate						0 / 1	0.31	0.2
Endrin Aldehyde	1.3	J	1.3	J	SD-20-01-ME	1 / 1	0.31	1.3
gamma-Chlordane	6.8	J	11.9	J	SD-20-01-FW	2 / 2	0.16	9.4
Metals - mg/Kg								
Aluminum	13500	J	29700	J	SD-20-03-FW	4 / 4	3.6	22113
Antimony	3.8	J	5.4	J	SD-20-03-FW	4 / 4	0.27	4.36
Arsenic	236		321	J	SD-20-02-FW	4 / 4	0.22	283
Barium	44.2		151	J	SD-20-02-FW	4 / 4	0.019	91
Beryllium	1.2	J	2	J	SD-20-03-FW	4 / 4	0.028	1.64
Cadmium	13.15	J	18.5	J	SD-20-03-FW	4 / 4	0.35	16.06
Chromium	1090	J	1860	J	SD-20-02-FW	4 / 4	0.056	1463
Cobalt	25.9	J	46.3	J	SD-20-03-FW	4 / 4	0.38	35.5
Copper	888	J	1075	J	SD-20-01-FW	4 / 4	0.084	1013
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	18500	J	43800	J	SD-20-02-FW	4 / 4	0.58	30325
Lead	449.5	J	1200	J	SD-20-03-FW	4 / 4	0.27	770
Manganese	511	J	901.5	J	SD-20-01-FW	4 / 4	0.019	729
Mercury	1	J	3.3	J	SD-20-03-FW	4 / 4	0.0051	2.05
Nickel	27.5	J	57.7	J	SD-20-03-FW	4 / 4	0.15	43
Selenium	3.3	J	11.1	J	SD-20-01-FW	4 / 4	0.054	7.08
Silver	0.29	J	1.6	J	SD-20-02-FW	2 / 2	0.01	0.95
Thallium	4.4	J	4.4	J	SD-20-03-FW	1 / 2	0.039 - 0.44	2.31
Vanadium	38.2		115	J	SD-20-03-FW	4 / 4	0.075	77
Zinc	1670	J	3470	J	SD-20-02-FW	4 / 4	0.17	2725
Total Combustible Organics (mg/Kg)	234000		441000	J	SD-20-01-ME	4 / 4	2000	321000
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
[1] Includes samples applicable to the muskrat model

US EPA ARCHIVE DOCUMENT

TABLE 4-65
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION AM
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	7500		7500		SD-AM-01	1 / 1	4.2327	7500
Antimony	2	J	2	J	SD-AM-01	1 / 1	0.4233	2.0
Arsenic	121		121		SD-AM-01	1 / 1	0.4233	121
Barium	58.4		58.4		SD-AM-01	1 / 1	0.4233	58
Beryllium	0.64		0.64		SD-AM-01	1 / 1	0.1693	0.64
Cadmium	3.9		3.9		SD-AM-01	1 / 1	0.1693	3.9
Chromium	322		322		SD-AM-01	1 / 1	0.4233	322
Cobalt	20.3		20.3		SD-AM-01	1 / 1	0.4233	20
Copper	197		197		SD-AM-01	1 / 1	0.4233	197
Cyanide	0.85	J	0.85	J	SD-AM-01	1 / 1	0.2822	0.9
Iron	23400	J	23400	J	SD-AM-01	1 / 1	1.6931	23400
Lead	150		150		SD-AM-01	1 / 1	0.254	150
Manganese	1140	J	1140	J	SD-AM-01	1 / 1	0.4233	1140
Mercury	1.9		1.9		SD-AM-01	1 / 1	0.0899	1.90
Nickel	18	J	18	J	SD-AM-01	1 / 1	0.4233	18
Selenium	1.1	J	1.1	J	SD-AM-01	1 / 1	0.8558	1.1
Silver						0 / 1	0.42	0.21
Thallium	0.44	J	0.44	J	SD-AM-01	1 / 1	0.2568	0.44
Vanadium	26.9		26.9		SD-AM-01	1 / 1	0.4233	27
Zinc	941		941		SD-AM-01	1 / 1	0.4233	941
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-66
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION AS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	15700		18800		SD-AS-02	2 / 2	3.9828 - 4.4604	17250
Antimony	2.15	J	2.9	J	SD-AS-02	2 / 2	0.3983 - 0.446	2.5
Arsenic	111		121		SD-AS-02	2 / 2	0.3983 - 0.446	116
Barium	95.85		109		SD-AS-02	2 / 2	0.3983 - 0.446	102
Beryllium	0.895		1.1		SD-AS-02	2 / 2	0.1593 - 0.1784	1.00
Cadmium	10.6		13.3		SD-AS-02	2 / 2	0.1593 - 0.1784	12.0
Chromium	576.5		918		SD-AS-02	2 / 2	0.3983 - 0.446	747
Cobalt	19.7		21		SD-AS-01	2 / 2	0.3983 - 0.446	20
Copper	444.5		576		SD-AS-02	2 / 2	0.3983 - 0.446	510
Cyanide	1.5	J	3.8	J	SD-AS-01	2 / 2	0.3754 - 0.3951	2.7
Iron	27850	J	29200	J	SD-AS-02	2 / 2	1.5931 - 1.7842	28525
Lead	484		661		SD-AS-02	2 / 2	0.239 - 0.2676	573
Manganese	378.5	J	384	J	SD-AS-02	2 / 2	0.3983 - 0.446	381
Mercury	3.05		3.1		SD-AS-02	2 / 2	0.1225 - 0.1251	3.08
Nickel	35	J	39.4	J	SD-AS-02	2 / 2	0.3983 - 0.446	37
Selenium	1.8	J	1.95	J	SD-AS-01	2 / 2	0.7593 - 0.906	1.9
Silver	0.605	J	0.76	J	SD-AS-02	2 / 2	0.3983 - 0.446	0.68
Thallium	0.95	J	1.2	J	SD-AS-02	2 / 2	0.2278 - 0.2718	1.08
Vanadium	59		72.6		SD-AS-02	2 / 2	0.3983 - 0.446	66
Zinc	2085		2290		SD-AS-02	2 / 2	0.3983 - 0.446	2188
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-67
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION KFSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	2550		9080		SD-KF-03	10 / 10	N/A	4890
Antimony						0 / 10	1.7 - 1.8	0.9
Arsenic	11.7		90.4		SD-KF-03	10 / 10	N/A	38
Barium	15.9		54.7		SD-KF-03	10 / 10	N/A	33
Beryllium	0.24		0.6		SD-KF-03	7 / 10	0.11 - 0.18	0.29
Cadmium	0.81		1.1		SD-KF-03	5 / 10	0.12 - 0.48	0.5
Chromium	20.8		113		SD-KF-03	10 / 10	N/A	68
Cobalt	3.1		10		SD-KF-03	10 / 10	N/A	7
Copper	21.9		185		SD-KF-03	10 / 10	N/A	79
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	6580		18700		SD-KF-03	10 / 10	N/A	11959
Lead	31.6		188		SD-KF-05	10 / 10	N/A	98
Manganese	83.5		503		SD-KF-03	10 / 10	N/A	291
Mercury	0.1	J	1.6	J	SD-KF-03	10 / 10	N/A	0.51
Nickel	5.8		12.6		SD-KF-10	7 / 10	2.5 - 5.3	7
Selenium	0.61	J	0.61	J	SD-KF-09	1 / 10	0.58 - 0.61	0.3
Silver	0.44	J	0.69	J	SD-KF-05	5 / 10	0.39 - 0.4	0.37
Thallium						0 / 10	1.7 - 1.8	0.88
Vanadium	9.1		29.6		SD-KF-03	10 / 10	N/A	19
Zinc	115	J	461		SD-KF-03	10 / 10	N/A	284
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	2600	J	46650		SD-KF-05	10 / 10	6410 - 9260	21195

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-68
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION LP
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	2270		20400		SD-LP-04	15 / 15	N/A	6889
Antimony	5.1	J	5.1	J	SD-LP-04	1 / 15	1.7 - 2.6	1
Arsenic	5.4		485	J	SD-LP-04	15 / 15	N/A	69.9
Barium	11.2		68.9		SD-LP-11	15 / 15	N/A	30
Beryllium	0.14		0.92		SD-LP-04	13 / 15	0.2 - 0.29	0.36
Cadmium	0.14	J	5.6	J	SD-LP-04	13 / 15	0.12	1.90
Chromium	8.2		134		SD-LP-11	15 / 15	N/A	52.5
Cobalt	2.4		15.4		SD-LP-03	15 / 15	N/A	7
Copper	6.6		1560	J	SD-LP-04	15 / 15	N/A	187
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	4420		23800		SD-LP-11	15 / 15	N/A	10464
Lead	6.4		400	J	SD-LP-04	15 / 15	N/A	83
Manganese	47.5		333		SD-LP-03	15 / 15	N/A	172
Mercury	0.16	J	1.4		SD-LP-04	13 / 15	0.09 - 0.1	0.46
Nickel	0.59	J	30.6		SD-LP-04	15 / 15	N/A	9.71
Selenium	0.92	J	3.1		SD-LP-04	4 / 15	0.59 - 2.9	1
Silver	0.76	J	0.76	J	SD-LP-11	1 / 15	0.19 - 0.42	0.2
Thallium	1.325	J	2.9	J	SD-LP-04	9 / 15	1.7 - 2.2	1.59
Vanadium	6.5		39.8		SD-LP-11	15 / 15	N/A	16.45
Zinc	15.2		2800		SD-LP-03	15 / 15	N/A	699
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	4800	J	68200		SD-LP-03	10 / 10	6020 - 8130	33930

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-69
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-28
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	11400		21600		SD-TT-28-03	3 / 3	N/A	16567
Antimony	11.9	J	26.3	J	SD-TT-28-03	3 / 3	N/A	19.0
Arsenic	459	J	987	J	SD-TT-28-03	3 / 3	N/A	752
Barium	81.8		104		SD-TT-28-03	3 / 3	N/A	95
Beryllium	0.87		1.5		SD-TT-28-03	3 / 3	N/A	1.12
Cadmium	12.7	J	17.1	J	SD-TT-28-03	3 / 3	N/A	14.7
Chromium	1390	J	4240	J	SD-TT-28-02	3 / 3	N/A	2817
Cobalt	23.8	J	32.5	J	SD-TT-28-01	3 / 3	N/A	30
Copper	592	J	1330	J	SD-TT-28-03	3 / 3	N/A	962
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	50600		88300		SD-TT-28-03	3 / 3	N/A	66733
Lead	269	J	657	J	SD-TT-28-03	3 / 3	N/A	421
Manganese	599	J	789	J	SD-TT-28-01	3 / 3	N/A	684
Mercury	3		5		SD-TT-28-02	3 / 3	N/A	4.07
Nickel	23.4		29.7	J	SD-TT-28-03	3 / 3	N/A	27
Selenium	7.5	J	10.2	J	SD-TT-28-03	3 / 3	N/A	8.6
Silver	3.1	J	5.3	J	SD-TT-28-03	3 / 3	N/A	4.13
Thallium						0 / 3	0.7 - 0.8	0.37
Vanadium	44		69.6	J	SD-TT-28-03	3 / 3	N/A	58
Zinc	2160	J	3160	J	SD-TT-28-03	3 / 3	N/A	2517
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-70
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-29
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	1100	J	1100	J	SD-TT-29-03-TR	1 / 1	57	1100
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	13500	J	17900	J	SD-TT-29-03	3 / 3	N/A	16233
Antimony	1.1	J	10.1	J	SD-TT-29-03	2 / 3	1.1	3.9
Arsenic	561	J	1050	J	SD-TT-29-03	3 / 3	N/A	747
Barium	60.3	J	79.3	J	SD-TT-29-02	3 / 3	N/A	71
Beryllium	0.88		1.1		SD-TT-29-03	3 / 3	N/A	0.99
Cadmium	11.15	J	15.2	J	SD-TT-29-03	3 / 3	N/A	13.3
Chromium	1460	J	5500	J	SD-TT-29-02	3 / 3	N/A	3127
Cobalt	31.8	J	36.4	J	SD-TT-29-01	3 / 3	N/A	35
Copper	704	J	1340	J	SD-TT-29-03	3 / 3	N/A	979
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	45200		115000		SD-TT-29-03	3 / 3	N/A	73533
Lead	316	J	649	J	SD-TT-29-02	3 / 3	N/A	501
Manganese	470	J	1190	J	SD-TT-29-03	3 / 3	N/A	787
Mercury	5.6	J	13.3	J	SD-TT-29-03	3 / 3	N/A	8.60
Nickel	26.3		34.8		SD-TT-29-02	3 / 3	N/A	30
Selenium	6.3	J	8.6	J	SD-TT-29-03	3 / 3	N/A	7.7
Silver	1.15		1.6		SD-TT-29-02	3 / 3	N/A	1.35
Thallium	5	J	14.3	J	SD-TT-29-03	3 / 3	N/A	8.97
Vanadium	45.9	J	96.9	J	SD-TT-29-02	3 / 3	N/A	67
Zinc	2250		3770		SD-TT-29-03	3 / 3	N/A	2848
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-71
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-30
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	7300	J	7300	J	SD-TT-30-01-TR	1 / 1	47	7300
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	33	J	33	J	SD-TT-30-01-TR	1 / 1	310	33
Benzo(b)fluoranthene	47	J	47	J	SD-TT-30-01-TR	1 / 1	310	47
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	40	J	40	J	SD-TT-30-01-TR	1 / 1	310	40
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	71	J	71	J	SD-TT-30-01-TR	1 / 1	310	71
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	55	J	55	J	SD-TT-30-01-TR	1 / 1	310	55
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	5780	J	17900		SD-TT-30-01-TR	4 / 4	9.14	14295
Antimony	0.9	J	23.6	J	SD-TT-30-01-TR	3 / 4	0.53 - 0.74	6.5
Arsenic	113	J	1080	J	SD-TT-30-03	4 / 4	1	587
Barium	32.7	J	124	J	SD-TT-30-01	4 / 4	0.4	70
Beryllium	0.4		1.3	J	SD-TT-30-01-TR	4 / 4	0.2	0.93
Cadmium	4	J	9.8	J	SD-TT-30-01	4 / 4	0.6	6.5
Chromium	623	J	5310	J	SD-TT-30-03	4 / 4	1	2368
Cobalt	9.8		30.4	J	SD-TT-30-01	4 / 4	0.36	19
Copper	253	J	3760	J	SD-TT-30-03	4 / 4	0.44	1381
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	12300		71600		SD-TT-30-01	4 / 4	1.4	38325
Lead	248	J	664		SD-TT-30-01-TR	4 / 4	0.6	439
Manganese	205	J	1910	J	SD-TT-30-01	4 / 4	0.24	825
Mercury	1.7	J	89.2	J	SD-TT-30-03	4 / 4	0.02	24.93
Nickel	8		35.1		SD-TT-30-01	4 / 4	0.8	21
Selenium	2.7	J	9.3	J	SD-TT-30-01	3 / 4	1	4.1
Silver	2.2		2.2		SD-TT-30-01	1 / 4	0.36 - 1	0.77
Thallium	1.5		9.7	J	SD-TT-30-01	3 / 4	1.1 - 1.14	3.56
Vanadium	21		66.2		SD-TT-30-01-TR	4 / 4	0.64	43
Zinc	644		1560		SD-TT-30-01	4 / 4	1.7	1186
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	240000		240000		SD-TT-30-01-TR	1 / 1	250	240000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-72
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-31
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	9130	J	14100	J	SD-TT-31-03	3 / 3	N/A	10927
Antimony						0 / 3	0.44 - 0.61	0.3
Arsenic	8.5	J	30.3	J	SD-TT-31-03	3 / 3	N/A	17
Barium	51.6	J	159	J	SD-TT-31-03	3 / 3	N/A	91
Beryllium	0.46		0.7		SD-TT-31-03	3 / 3	N/A	0.54
Cadmium	2.3	J	5.5	J	SD-TT-31-03	3 / 3	N/A	4.2
Chromium	123	J	295	J	SD-TT-31-03	3 / 3	N/A	185
Cobalt	8.7	J	19.2	J	SD-TT-31-03	3 / 3	N/A	12
Copper	56.7	J	181	J	SD-TT-31-03	3 / 3	N/A	113
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	15600		40700		SD-TT-31-03	3 / 3	N/A	24000
Lead	190	J	332	J	SD-TT-31-01	3 / 3	N/A	277
Manganese	213	J	1210	J	SD-TT-31-03	3 / 3	N/A	595
Mercury	0.94	J	1.8	J	SD-TT-31-01	3 / 3	N/A	1.41
Nickel	19.7		35.6		SD-TT-31-03	3 / 3	N/A	26
Selenium	1.8	J	4.1	J	SD-TT-31-03	3 / 3	N/A	2.7
Silver	0.6	J	0.6	J	SD-TT-31-03	1 / 3	0.3 - 0.38	0.31
Thallium	N/A		N/A		N/A	0 / 0	N/A	N/A
Vanadium	38.1	J	56.5	J	SD-TT-31-03	3 / 3	N/A	46
Zinc	280		678		SD-TT-31-03	3 / 3	N/A	464
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-73
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-32
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	260	J	260	J	SD-TT-32-02-TR	1 / 1	47	260
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 1	240	120
Acenaphthylene						0 / 1	240	120
Anthracene						0 / 1	240	120
Benzo(a)anthracene	400		400		SD-TT-32-02-TR	1 / 1	240	400
Benzo(a)pyrene	470	J	470	J	SD-TT-32-02-TR	1 / 1	240	470
Benzo(b)fluoranthene	810		810		SD-TT-32-02-TR	1 / 1	240	810
Benzo(g,h,i)perylene	230	J	230	J	SD-TT-32-02-TR	1 / 1	240	230
Benzo(k)fluoranthene	180	J	180	J	SD-TT-32-02-TR	1 / 1	240	180
Carbazole						0 / 1	240	120
Chrysene	460		460		SD-TT-32-02-TR	1 / 1	240	460
Dibenz(a,h)anthracene						0 / 1	240	120
Dibenzofuran						0 / 1	240	120
Fluoranthene	1000		1000		SD-TT-32-02-TR	1 / 1	240	1000
Fluorene						0 / 1	240	120
Indeno(1,2,3-cd)pyrene	210	J	210	J	SD-TT-32-02-TR	1 / 1	240	210
Naphthalene						0 / 1	240	120
N-nitrosodiphenylamine						0 / 1	240	120
Phenanthrene	450		450		SD-TT-32-02-TR	1 / 1	240	450
Pyrene	860		860		SD-TT-32-02-TR	1 / 1	240	860
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	0.94	0.47
4,4'-DDE	0.78	J	0.78	J	SD-TT-32-02-TR	1 / 1	0.94	1
4,4'-DDT						0 / 1	0.94	0.47
Aldrin						0 / 1	0.47	0.2
alpha-Chlordane						0 / 1	0.47	0.2
Aroclor 1248						0 / 1	9.4	5
Aroclor 1254						0 / 1	9.4	5
Aroclor 1260						0 / 1	9.4	5
beta-BHC						0 / 1	0.47	0.2
delta-BHC						0 / 1	0.47	0.2
Endosulfan I						0 / 1	0.47	0.2
Endosulfan Sulfate						0 / 1	0.94	0.5
Endrin Aldehyde						0 / 1	0.94	0.5
gamma-Chlordane						0 / 1	0.47	0.2
Metals - mg/Kg								
Aluminum	5080		11500		SD-TT-32-02-TR	4 / 4	9.14	7975
Antimony	9.1	J	9.1	J	SD-TT-32-02-TR	1 / 4	0.71 - 2.3	2.8
Arsenic	94.2		403		SD-TT-32-03	4 / 4	1	252
Barium	35.1		112		SD-TT-32-03	4 / 4	0.4	70
Beryllium	0.29		0.82	J	SD-TT-32-02-TR	4 / 4	0.2	0.54
Cadmium	3.2	J	6.5	J	SD-TT-32-02	4 / 4	0.6	5.0
Chromium	368		699		SD-TT-32-02-TR	4 / 4	1	530
Cobalt	8.9	J	27	J	SD-TT-32-03	4 / 4	0.36	22
Copper	183	J	403		SD-TT-32-02-TR	4 / 4	0.44	304
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	14800		57200		SD-TT-32-03	4 / 4	1.4	31425
Lead	152	J	288		SD-TT-32-02-TR	4 / 4	0.6	216
Manganese	133		2040		SD-TT-32-03	4 / 4	0.24	767
Mercury	0.44		4.3		SD-TT-32-03	4 / 4	0.2	2.71
Nickel	10.1	J	21.6	J	SD-TT-32-02	4 / 4	0.8	18
Selenium	2.2	J	5.4		SD-TT-32-03	3 / 4	1	2.7
Silver						0 / 3	0.12 - 1	0.22
Thallium						0 / 4	0.5 - 1.1	0.36
Vanadium	21.7	J	38.1	J	SD-TT-32-02-TR	4 / 4	0.64	31
Zinc	518		1960		SD-TT-32-02	4 / 4	1.7	1195
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	150000	J	150000	J	SD-TT-32-02-TR	1 / 1	250	150000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-74
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION TT-33
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	200	J	200	J	SD-TT-33-02-TR	1 / 1	23	200
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 1	130	65
Acenaphthylene						0 / 1	130	65
Anthracene						0 / 1	130	65
Benzo(a)anthracene	110	J	110	J	SD-TT-33-02-TR	1 / 1	130	110
Benzo(a)pyrene	140	J	140	J	SD-TT-33-02-TR	1 / 1	130	140
Benzo(b)fluoranthene	260		260		SD-TT-33-02-TR	1 / 1	130	260
Benzo(g,h,i)perylene	60	J	60	J	SD-TT-33-02-TR	1 / 1	130	60
Benzo(k)fluoranthene	99	J	99	J	SD-TT-33-02-TR	1 / 1	130	99
Carbazole						0 / 1	130	65
Chrysene	160		160		SD-TT-33-02-TR	1 / 1	130	160
Dibenz(a,h)anthracene						0 / 1	130	65
Dibenzofuran						0 / 1	130	65
Fluoranthene	290		290		SD-TT-33-02-TR	1 / 1	130	290
Fluorene						0 / 1	130	65
Indeno(1,2,3-cd)pyrene	60	J	60	J	SD-TT-33-02-TR	1 / 1	130	60
Naphthalene						0 / 1	130	65
N-nitrosodiphenylamine						0 / 1	130	65
Phenanthrene	130	J	130	J	SD-TT-33-02-TR	1 / 1	130	130
Pyrene	270		270		SD-TT-33-02-TR	1 / 1	130	270
PCBs/Pesticides - ug/Kg								
4,4'-DDD	1.2		1.2		SD-TT-33-02-TR	1 / 1	1.1	1.2
4,4'-DDE	1.7		1.7		SD-TT-33-02-TR	1 / 1	1.1	1.7
4,4'-DDT						0 / 1	1.1	0.6
Aldrin						0 / 1	0.53	0.3
alpha-Chlordane						0 / 1	0.53	0.3
Aroclor 1248						0 / 1	11	6
Aroclor 1254						0 / 1	11	6
Aroclor 1260						0 / 1	11	6
beta-BHC						0 / 1	0.53	0.3
delta-BHC						0 / 1	0.53	0.3
Endosulfan I						0 / 1	0.53	0.3
Endosulfan Sulfate						0 / 1	1.1	0.6
Endrin Aldehyde						0 / 1	1.1	0.6
gamma-Chlordane						0 / 1	0.53	0.3
Metals - mg/Kg								
Aluminum	6640		11700		SD-TT-33-01	4 / 4	9.14	9603
Antimony	3.5	J	9.1	J	SD-TT-33-02	4 / 4	0.74	5.7
Arsenic	180	J	288	J	SD-TT-33-03	4 / 4	1	241
Barium	41.2		78.4		SD-TT-33-03	4 / 4	0.4	62
Beryllium	0.39		0.72		SD-TT-33-03	4 / 4	0.2	0.57
Cadmium	2.8		7.4	J	SD-TT-33-01	4 / 4	0.6	5.6
Chromium	420		2200	J	SD-TT-33-02	4 / 4	1	987
Cobalt	14.1	J	27.4		SD-TT-33-03	4 / 4	0.36	20
Copper	270		489	J	SD-TT-33-01	4 / 4	0.44	407
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	16800		37800		SD-TT-33-03	4 / 4	1.4	30475
Lead	141		285	J	SD-TT-33-03	4 / 4	0.6	198
Manganese	154	J	776		SD-TT-33-02-TR	4 / 4	0.24	594
Mercury	1.2		5.6	J	SD-TT-33-03	4 / 4	0.2	3.15
Nickel	9.2		22		SD-TT-33-03	4 / 4	0.8	15
Selenium	2.7	J	4.6	J	SD-TT-33-03	3 / 4	0.99	3.0
Silver	1.1	J	2.3	J	SD-TT-33-03	3 / 4	0.99	1.47
Thallium						0 / 4	0.31 - 1.1	0.39
Vanadium	19.3		42.2		SD-TT-33-03	4 / 4	0.64	30
Zinc	581	J	1090	J	SD-TT-33-02	4 / 4	1.7	940
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	86000	J	86000	J	SD-TT-33-02-TR	1 / 1	250	86000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-75
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION UF[1]
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
PCBs/Pesticides - ug/Kg								
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A
Metals - mg/Kg								
Aluminum	21700		22700		SD-UF-03	2 / 2	3.1012 - 3.6977	22200
Antimony	N/A		N/A		N/A	0 / 0	N/A	N/A
Arsenic	121		127		SD-UF-01	2 / 2	0.3101 - 0.3698	124
Barium	164		198		SD-UF-03	2 / 2	0.3101 - 0.3698	181
Beryllium	1.2		1.2		SD-UF-03	2 / 2	0.124 - 0.1479	1.20
Cadmium	10.6		12.8		SD-UF-01	2 / 2	0.124 - 0.1479	11.7
Chromium	389		545		SD-UF-01	2 / 2	0.3101 - 0.3698	467
Cobalt	26		28.3		SD-UF-01	2 / 2	0.3101 - 0.3698	27
Copper	493		553		SD-UF-01	2 / 2	0.3101 - 0.3698	523
Cyanide	1		1.8		SD-UF-03	2 / 2	0.2227 - 0.2601	1.4
Iron	44300	J	46900	J	SD-UF-03	2 / 2	2.4809 - 2.9582	45600
Lead	607		860		SD-UF-01	2 / 2	0.1861 - 0.2219	734
Manganese	878		923		SD-UF-03	2 / 2	0.3101 - 0.3698	901
Mercury	1.7	J	2	J	SD-UF-01	2 / 2	0.207 - 0.2241	1.85
Nickel	46.4		47.5		SD-UF-01	2 / 2	0.3101 - 0.3698	47
Selenium	2.2		2.3		SD-UF-03	2 / 2	0.8023 - 0.8377	2.3
Silver	0.42	J	1.2	J	SD-UF-01	2 / 2	0.3101 - 0.3698	0.81
Thallium	0.68	J	0.86		SD-UF-01	2 / 2	0.2407 - 0.2513	0.77
Vanadium	78.6	J	85.6	J	SD-UF-01	2 / 2	0.3101 - 0.3698	82
Zinc	2060		2600		SD-UF-01	2 / 2	0.3101 - 0.3698	2330
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
[1] Includes samples applicable to the muskrat model

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TABLE 4-76
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION WW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A
Acetone	410	J	410	J	SD-WW-06-TR	1 / 1	10	410
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A
SVOCs - ug/Kg								
2-Methylnaphthalene						0 / 1	610	305
Acenaphthylene						0 / 1	610	305
Anthracene						0 / 1	610	305
Benzo(a)anthracene						0 / 1	610	305
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A
Benzo(b)fluoranthene	330	J	330	J	SD-WW-06-TR	1 / 1	610	330
Benzo(g,h,i)perylene						0 / 1	610	305
Benzo(k)fluoranthene	610	J	610	J	SD-WW-06-TR	1 / 1	610	610
Carbazole						0 / 1	610	305
Chrysene	300	J	300	J	SD-WW-06-TR	1 / 1	610	300
Dibenz(a,h)anthracene						0 / 1	610	305
Dibenzofuran						0 / 1	610	305
Fluoranthene	500	J	500	J	SD-WW-06-TR	1 / 1	610	500
Fluorene						0 / 1	610	305
Indeno(1,2,3-cd)pyrene						0 / 1	610	305
Naphthalene						0 / 1	610	305
N-nitrosodiphenylamine						0 / 1	610	305
Phenanthrene						0 / 1	610	305
Pyrene	480	J	480	J	SD-WW-06-TR	1 / 1	610	480
PCBs/Pesticides - ug/Kg								
4,4'-DDD						0 / 1	5	3
4,4'-DDE	2.1	J	2.1	J	SD-WW-06-TR	1 / 1	5	2
4,4'-DDT						0 / 1	5	3
Aldrin						0 / 1	2.5	1.3
alpha-Chlordane						0 / 1	2.5	1.3
Aroclor 1248						0 / 1	50	25
Aroclor 1254						0 / 1	50	25
Aroclor 1260						0 / 1	50	25
beta-BHC						0 / 1	2.5	1.3
delta-BHC						0 / 1	2.5	1.3
Endosulfan I						0 / 1	2.5	1.3
Endosulfan Sulfate						0 / 1	5	2.5
Endrin Aldehyde						0 / 1	5	2.5
gamma-Chlordane						0 / 1	2.5	1.3
Metals - mg/Kg								
Aluminum	6160		13800		SD-WW-12	14 / 14	9.14	10426.43
Antimony	57.3	J	57.3	J	SD-WW-06-TR	1 / 2	0.74 - 2	29
Arsenic	4.4	J	54.6	J	SD-WW-09	14 / 14	1	41
Barium	124		3420		SD-WW-11	14 / 14	0.4	444.11
Beryllium	0.77	J	0.885		SD-WW-01	3 / 14	0.02 - 0.65	0.31
Cadmium	2.8	J	9.6	J	SD-WW-02	13 / 14	0.048 - 0.6	4
Chromium	3670	J	24600	J	SD-WW-08	14 / 14	1	12364.6
Cobalt	6.4		21		SD-WW-09	14 / 14	0.36	12
Copper	178		598		SD-WW-02	14 / 14	0.44	349.21
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A
Iron	6740		20000		SD-WW-03	14 / 14	1.4	11956
Lead	147	J	495	J	SD-WW-07	14 / 14	0.6	301
Manganese	95.4		803		SD-WW-03	14 / 14	0.24	329.21
Mercury	0.46		1.8		SD-WW-01	13 / 14	0.09 - 0.24	1
Nickel	18.9		28.9		SD-WW-08	14 / 14	0.8	23.45
Selenium	3.2	J	5.95	J	SD-WW-01	12 / 14	1 - 5	4.32
Silver						0 / 14	0.35 - 1.2	0.36
Thallium	0.86	J	2.7	J	SD-WW-08	10 / 14	0.65 - 3	1
Vanadium	39.8		103		SD-WW-04	14 / 14	0.64	68
Zinc	888	J	1890		SD-WW-08	14 / 14	1.7	1209.535714
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A
Total Organic Carbon (mg/Kg)	760000	J	760000	J	SD-WW-06-TR	1 / 1	250	760000

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-77
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 21
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene						0 / 1	76 - 225	38	0.0	*1
Tetrachloroethene						0 / 1	75	38	0.0	*1
Trichloroethene	19	J	19	J	SD-21-01-ME	1 / 1	30	19	19	*1
SVOCs - ug/Kg										
2-Methylnaphthalene	140		140		SD-21-01-ME	1 / 1	67	140	140	*1
Acenaphthylene	38	J	38	J	SD-21-01-ME	1 / 1	67	38	38	*1
Anthracene	420		420		SD-21-01-ME	1 / 1	67	420	420	*1
Benzo(a)anthracene	390		390		SD-21-01-ME	1 / 1	67	390	390	*1
Benzo(a)pyrene	890	J	890	J	SD-21-01-ME	1 / 1	67	890	890	*1
Benzo(b)fluoranthene	740	J	3100	J	SD-21-01-FW	3 / 3	67	1607	3100	*1
Benzo(g,h,i)perylene	710	J	710	J	SD-21-01-ME	1 / 1	67	710	710	*1
Benzo(k)fluoranthene						0 / 1	67	34	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	940		940		SD-21-01-ME	1 / 1	67	940	940	*1
Dibenz(a,h)anthracene	240	J	240	J	SD-21-01-ME	1 / 1	67	240	240	*1
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	970	J	2500	J	SD-21-01-FW	3 / 3	67	1623	2500	*1
Fluorene	240		240		SD-21-01-ME	1 / 1	67	240	240	*1
Indeno(1,2,3-cd)pyrene	620	J	620	J	SD-21-01-ME	1 / 1	67	620	620	*1
Naphthalene	1300	J	2500	J	SD-21-02-FW	2 / 2	67	1900	2500	*1
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	600		600		SD-21-01-ME	1 / 1	67	600	600	*1
Pyrene	620	J	2400	J	SD-21-01-FW	3 / 3	67	1440	2400	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD	27	J	35	J	SD-21-01-ME	3 / 3	3.2	30	35	*1
4,4'-DDE	22		36	J	SD-21-01-FW	3 / 3	3.2	31	36	*1
4,4'-DDT	4.4	J	4.4	J	SD-21-01-ME	1 / 1	3.2	4.4	4.4	*1
Aldrin						0 / 1	1.6	0.80	0.0	*1
alpha-Chlordane	29		62	J	SD-21-03-FW	3 / 3	1.6	50	62	*1
Aroclor 1248	240	J	240	J	SD-21-01-ME	1 / 1	3.2	240	240	*1
Aroclor 1254						0 / 1	3.2	1.6	0.0	*1
Aroclor 1260	420		420		SD-21-01-ME	1 / 1	3.2	420	420	*1
beta-BHC						0 / 1	1.6	0.80	0.0	*1
delta-BHC	1.8	J	1.8	J	SD-21-01-ME	1 / 1	1.6	1.8	1.8	*1
Endosulfan I	14	J	68	J	SD-21-01-FW	3 / 4	1.6	35	68	*2
Endosulfan Sulfate						0 / 1	3.2	1.6	0.0	*1
Endrin Aldehyde	9	J	9	J	SD-21-01-ME	1 / 1	3.2	9.0	9.0	*1
gamma-Chlordane	19	J	47	J	SD-21-03-FW	2 / 2	1.6	33	47	*1
Metals - mg/Kg										
Aluminum	8890	J	18400	J	SD-21-01-FW	4 / 4	3.6	13648	18400	*2
Antimony	2	J	2	J	SD-21-01-ME	1 / 1	0.27	2.0	2.0	*1
Arsenic	121	J	258		SD-21-01-ME	4 / 4	0.22	175	248	2
Barium	55.3	J	181		SD-21-01-ME	4 / 4	0.019	128	181	*2
Beryllium	0.68	J	1.1	J	SD-21-01-FW	4 / 4	0.028	0.90	1.1	*2
Cadmium	14.1		20.5	J	SD-21-02-FW	4 / 4	0.36	18	21	*2
Chromium	489	J	5590	J	SD-21-01-ME	4 / 4	0.056	2400	5034	2
Cobalt	12.8	J	29.9	J	SD-21-01-FW	4 / 4	0.38	23	30	*2
Copper	324	J	613		SD-21-01-ME	4 / 4	0.084	457	601	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	11300	J	28000	J	SD-21-01-FW	4 / 4	0.58	21950	28000	*2
Lead	187	J	722	J	SD-21-01-FW	4 / 4	0.27	527	722	*2
Manganese	101	J	268		SD-21-01-ME	4 / 4	0.019	208	268	*2
Mercury	0.15		18.2	J	SD-21-03-FW	4 / 4	0.0051	9.5	18	*2
Nickel	17.9	J	46.8	J	SD-21-01-FW	4 / 4	0.15	33	47	*2
Selenium	3	J	3.5	J	SD-21-01-FW	3 / 3	0.054	3.2	3.5	*1
Silver	0.3	J	0.3	J	SD-21-01-ME	1 / 1	0.01	0.30	0.30	*1
Thallium						0 / 1	0.44	0.22	0.0	*1
Vanadium	26.6	J	77.3	J	SD-21-01-FW	4 / 4	0.075	54	77	*2
Zinc	2350	J	4940	J	SD-21-01-ME	4 / 4	0.17	3563	4856	2
Total Combustible Organics (mg/Kg)	344000	J	344000	J	SD-21-01-ME	1 / 1	2000	344000	344000	*1
Total Organic Carbon (mg/Kg)	244000		441000		SD-21-02-FW	3 / 3	N/A	324333	441000	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-78
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION BW
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	417	J	417	J	SD-12-01-ME	1 / 1	103	417	417	*1
Tetrachloroethene						0 / 1	309	155	0.0	*1
Trichloroethene	53	J	53	J	SD-12-01-ME	1 / 1	103	53	53	*1
SVOCs - ug/Kg										
2-Methylnaphthalene	13	J	13	J	SD-12-01-ME	1 / 1	1	13	13	*1
Acenaphthylene	19	J	19	J	SD-12-01-ME	1 / 1	1	19	19	*1
Anthracene	69	J	69	J	SD-12-01-ME	1 / 1	67	69	69	*1
Benzo(a)anthracene	560	J	560	J	SD-12-01-ME	1 / 1	67	560	560	*1
Benzo(a)pyrene	1000	J	1000	J	SD-12-01-ME	1 / 1	67	1000	1000	*1
Benzo(b)fluoranthene	1500	J	1500	J	SD-12-01-ME	1 / 1	67	1500	1500	*1
Benzo(g,h,i)perylene	640	J	640	J	SD-12-01-ME	1 / 1	67	640	640	*1
Benzo(k)fluoranthene	720	J	720	J	SD-12-01-ME	1 / 1	67	720	720	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	850	J	850	J	SD-12-01-ME	1 / 1	67	850	850	*1
Dibenz(a,h)anthracene	320	J	320	J	SD-12-01-ME	1 / 1	2	320	320	*1
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	1200	J	1200	J	SD-12-01-ME	1 / 1	67	1200	1200	*1
Fluorene	47	J	47	J	SD-12-01-ME	1 / 1	67	47	47	*1
Indeno(1,2,3-cd)pyrene	740	J	740	J	SD-12-01-ME	1 / 1	67	740	740	*1
Naphthalene	26	J	26	J	SD-12-01-ME	1 / 1	67	26	26	*1
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	570	J	570	J	SD-12-01-ME	1 / 1	67	570	570	*1
Pyrene	1000	J	1000	J	SD-12-01-ME	1 / 1	67	1000	1000	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD	17		17		SD-12-01-ME	1 / 1	0.33	17	17	*1
4,4'-DDE	4		4		SD-12-01-ME	1 / 1	0.33	4.0	4.0	*1
4,4'-DDT	1.3	J	1.3	J	SD-12-01-ME	1 / 1	0.33	1.3	1.3	*1
Aldrin						0 / 1	0.17	0.085	0.0	*1
alpha-Chlordane	2.4	J	2.4	J	SD-12-01-ME	1 / 1	0.17	2.4	2.4	*1
Aroclor 1248	28	J	28	J	SD-12-01-ME	1 / 1	3.3	28	28	*1
Aroclor 1254						0 / 1	3.3	1.7	0.0	*1
Aroclor 1260	58		58		SD-12-01-ME	1 / 1	3.3	58	58	*1
beta-BHC						0 / 1	0.17	0.085	0.0	*1
delta-BHC						0 / 1	0.17	0.085	0.0	*1
Endosulfan I						0 / 1	0.17	0.085	0.0	*1
Endosulfan Sulfate						0 / 1	0.33	0.17	0.0	*1
Endrin Aldehyde	1.8	J	1.8	J	SD-12-01-ME	1 / 1	0.33	1.8	1.8	*1
gamma-Chlordane	1.7	J	1.7	J	SD-12-01-ME	1 / 1	0.17	1.7	1.7	*1
Metals - mg/Kg										
Aluminum	15500		26000		SD-12-01-ME	6 / 6	3.5	18558	21850	2
Antimony	11.1	J	68	J	SD-12-01-ME	6 / 6	0.27	22	63	13
Arsenic	656	J	3230		SD-12-01-ME	6 / 6	0.22	1239	3036	13
Barium	78.8		181		SD-BW-02	6 / 6	0.019	129	166	2
Beryllium	1.1		2		SD-12-01-ME	6 / 6	0.028	1.4	1.7	2
Cadmium	6		12.2	J	SD-BW-02	6 / 6	0.037	11	12	*2
Chromium	720		2305		SD-BW-01	6 / 6	0.056	1518	2035	2
Cobalt	23.6		57.5		SD-BW-05	6 / 6	0.38	40	51	2
Copper	535		2080		SD-12-01-ME	6 / 6	0.083	899	1520	3
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	54850		189000		SD-BW-03	6 / 6	0.57	111725	149491	2
Lead	405		1240		SD-12-01-ME	6 / 6	0.27	607	866	2
Manganese	521		1530	J	SD-BW-03	6 / 6	0.019	1036	1392	2
Mercury	1.4		27.5		SD-12-01-ME	6 / 6	0.0051	6.6	16	6
Nickel	28.3		46.9		SD-BW-05	6 / 6	0.15	36	41	2
Selenium	5.3	J	18.3		SD-12-01-ME	6 / 6	0.41	9.9	14	2
Silver	0.54	J	2.5		SD-BW-02	6 / 6	0.01	1.5	2.1	2
Thallium	3.85	J	18.1	J	SD-BW-03	5 / 6	0.044 - 1.2	8.2	13	2
Vanadium	65.2		107		SD-12-01-ME	6 / 6	0.074	81	92	2
Zinc	1620		3050		SD-BW-05	6 / 6	0.17	2102	2590	2
Total Combustible Organics (mg/Kg)	912000	J	912000	J	SD-12-01-ME	1 / 1	2000	912000	912000	*1
Total Organic Carbon (mg/Kg)	138000		177000		SD-BW-02	5 / 5	8130 - 12000	161600	176131	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-79
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION CB-01
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4230		21100	J	SD-CB-01-04	10 / 10	N/A	11886	14742	2
Antimony	0.77	J	4	J	SD-CB-01-07	4 / 10	0.57 - 2	1.2	2.0	3
Arsenic	8.2	J	98.7	J	SD-CB-01-04	10 / 10	N/A	41	58	2
Barium	19.35		105		SD-CB-01-10	8 / 10	13.9 - 16.3	40	59	2
Beryllium	0.33		2		SD-CB-01-04	10 / 10	N/A	1.0	1.4	2
Cadmium	1.1	J	16.1	J	SD-CB-01-02	10 / 10	N/A	5.2	9.3	3
Chromium	27.5	J	584		SD-CB-01-02	10 / 10	N/A	217	332	2
Cobalt	0.79		33.4		SD-CB-01-02	10 / 10	N/A	6.0	14	5
Copper	58.1	J	1090	J	SD-CB-01-04	10 / 10	N/A	389	749	3
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	4250		27200		SD-CB-01-02	10 / 10	N/A	11059	18702	5
Lead	75	J	648	J	SD-CB-01-02	10 / 10	N/A	317	443	2
Manganese	51.5		1260	J	SD-CB-01-10	10 / 10	N/A	338	688	3
Mercury	0.28	J	4.8	J	SD-CB-01-04	10 / 10	N/A	1.5	2.9	3
Nickel	4		31.8	J	SD-CB-01-02	10 / 10	N/A	9.2	20	13
Selenium	1.2	J	8.3	J	SD-CB-01-04	10 / 10	N/A	3.7	5.0	2
Silver						0 / 10	0.12 - 1	0.33	0.43	2
Thallium	0.425	J	3.1		SD-CB-01-04	5 / 10	0.58 - 1	1.0	2.5	5
Vanadium	21.9		114		SD-CB-01-07	10 / 10	N/A	54	79	3
Zinc	58.4		1190		SD-CB-01-02	10 / 10	N/A	422	638	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-80
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION CB-02
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	1865		8170		SD-CB-02-01	10 / 10	N/A	4439	5409	2
Antimony	0.89	J	2	J	SD-CB-02-03	10 / 10	N/A	1.5	1.8	2
Arsenic	7.55	J	56.2	J	SD-CB-02-06	10 / 10	N/A	27	41	3
Barium	13.6		389		SD-CB-02-07	10 / 10	N/A	79	171	6
Beryllium	0.16		0.49		SD-CB-02-01	10 / 10	N/A	0.29	0.34	2
Cadmium	0.91	J	5.8	J	SD-CB-02-01	10 / 10	N/A	3.1	3.8	2
Chromium	17.9	J	248	J	SD-CB-02-01	10 / 10	N/A	106	144	2
Cobalt	1.2		7.45		SD-CB-02-09	10 / 10	N/A	4.2	5.3	2
Copper	38.3	J	168		SD-CB-02-01	10 / 10	N/A	75	98	3
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	3960		9640		SD-CB-02-05	10 / 10	N/A	5914	6898	2
Lead	67	J	342	J	SD-CB-02-07	10 / 10	N/A	119	238	13
Manganese	34.5	J	108	J	SD-CB-02-05	10 / 10	N/A	56	72	3
Mercury	0.12		0.58		SD-CB-02-01	10 / 10	N/A	0.24	0.33	3
Nickel	2.1		12.8	J	SD-CB-02-04	10 / 10	N/A	8.3	10	2
Selenium	1.1	J	3.1	J	SD-CB-02-01	5 / 10	0.97 - 2.8	1.4	1.9	2
Silver	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Thallium						0 / 10	0.54 - 1.7	0.43	0.54	3
Vanadium	18.5		45.6		SD-CB-02-04	10 / 10	N/A	27	32	2
Zinc	132	J	450	J	SD-CB-02-09	10 / 10	N/A	250	314	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-81
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION CB-03
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4050	J	16100	J	SD-CB-03-01	12 / 12	N/A	9264	11284	2
Antimony	4.2	J	4.8	J	SD-CB-03-08	3 / 12	0.43 - 3.5	1.5	4.8	*15
Arsenic	9.1	J	1410		SD-CB-03-11	12 / 12	N/A	272	595	3
Barium	20.7		95.5		SD-CB-03-08	12 / 12	N/A	52	67	2
Beryllium	0.2		0.91		SD-CB-03-06	12 / 12	N/A	0.54	0.66	2
Cadmium	0.77	J	23.1	J	SD-CB-03-06	12 / 12	N/A	7.4	13	3
Chromium	38.7	J	768		SD-CB-03-06	12 / 12	N/A	457	768	*15
Cobalt	4.35		130	J	SD-CB-03-06	12 / 12	N/A	19	63	13
Copper	29.2	J	670	J	SD-CB-03-06	12 / 12	N/A	269	376	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	8230		86500		SD-CB-03-11	12 / 12	N/A	30996	50627	3
Lead	24.4	J	443	J	SD-CB-03-06	12 / 12	N/A	196	274	2
Manganese	43.6	J	986		SD-CB-03-12	12 / 12	N/A	283	464	3
Mercury	0.058	J	3.6		SD-CB-03-12	12 / 12	N/A	1.2	2.5	3
Nickel	8.7		78.3	J	SD-CB-03-06	12 / 12	N/A	26	37	3
Selenium	0.69	J	8.8		SD-CB-03-06	11 / 11	N/A	3.8	5.3	2
Silver	3.2	J	3.2	J	SD-CB-03-06	1 / 8	0.11 - 0.43	0.51	3.2	*15
Thallium	1.2		1.5	J	SD-CB-03-01	3 / 11	0.48 - 1.7	0.71	0.97	2
Vanadium	13.5		97.4	J	SD-CB-03-08	12 / 12	N/A	47	62	2
Zinc	135		5270		SD-CB-03-06	12 / 12	N/A	1148	2099	3
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-82
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION CB-04
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4670		13800		SD-CB-04-03	10 / 10	N/A	9437	11027	2
Antimony	0.67	J	7.2		SD-CB-04-02	10 / 10	N/A	3.6	4.8	2
Arsenic	16.5		325.5		SD-CB-04-06	10 / 10	N/A	112	182	3
Barium	20.9		109		SD-CB-04-05	10 / 10	N/A	61	77	2
Beryllium	0.25	J	1		SD-CB-04-01	10 / 10	N/A	0.62	0.77	2
Cadmium	0.41		8.9		SD-CB-04-05	10 / 10	N/A	4.0	5.7	2
Chromium	35.2		568		SD-CB-04-03	10 / 10	N/A	167	272	3
Cobalt	5.3		18.9		SD-CB-04-05	10 / 10	N/A	8.8	11	3
Copper	47.7		358		SD-CB-04-02	10 / 10	N/A	185	244	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	7950		86200		SD-CB-04-02	10 / 10	N/A	23967	39923	3
Lead	59.6		409		SD-CB-04-03	10 / 10	N/A	208	276	2
Manganese	72.5		2410		SD-CB-04-05	10 / 10	N/A	404	1380	13
Mercury	0.18		2.2		SD-CB-04-02	10 / 10	N/A	0.73	1.2	3
Nickel	10.1		177		SD-CB-04-03	10 / 10	N/A	41	77	3
Selenium	0.95	J	5.1	J	SD-CB-04-10	9 / 10	0.58	3.0	3.9	2
Silver	0.23	J	11.5		SD-CB-04-02	5 / 10	0.19 - 0.53	1.3	12	*15
Thallium	3.1		5.3		SD-CB-04-02	2 / 10	0.58 - 1.6	1.1	5.3	*15
Vanadium	18.5		85.4		SD-CB-04-03	10 / 10	N/A	55	68	2
Zinc	112		8750		SD-CB-04-03	10 / 10	N/A	1397	3066	6
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	44300		298000		SD-CB-04-01	10 / 10	8470 - 18500	174000	222466	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-83
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION CB-06
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4130		10800		SD-CB-06-08	10 / 10	N/A	7195	8561	2
Antimony	2.2	J	7.8		SD-CB-06-03	2 / 10	1.7 - 1.9	1.7	4.7	13
Arsenic	22.4	J	257	J	SD-CB-06-03	10 / 10	N/A	98	140	2
Barium	8.4		59.5		SD-CB-06-07	10 / 10	N/A	40	51	2
Beryllium	0.22	J	0.66		SD-CB-06-01	6 / 10	0.2 - 0.22	0.27	0.38	2
Cadmium	0.88		34.6		SD-CB-06-01	10 / 10	N/A	8.6	17	3
Chromium	31.8		969		SD-CB-06-01	10 / 10	N/A	280	497	3
Cobalt	3.2		25		SD-CB-06-07	10 / 10	N/A	9.2	14	3
Copper	39.9		386		SD-CB-06-01	10 / 10	N/A	180	236	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	5580		26800		SD-CB-06-08	10 / 10	N/A	12693	16258	2
Lead	19.9		328		SD-CB-06-01	10 / 10	N/A	137	189	2
Manganese	50	J	133	J	SD-CB-06-05	10 / 10	N/A	79	94	2
Mercury	0.05	J	0.56		SD-CB-06-10	9 / 10	0.04	0.23	0.34	2
Nickel	6.2		49.4		SD-CB-06-01	10 / 10	N/A	19	28	3
Selenium	0.975	J	3	J	SD-CB-06-01	6 / 10	0.77 - 0.86	1.4	2.0	2
Silver	0.22	J	0.27	J	SD-CB-06-03	2 / 10	0.19 - 0.22	0.13	0.17	2
Thallium	1.8	J	6.1		SD-CB-06-03	9 / 10	1.5	3.2	4.1	2
Vanadium	10.4		103		SD-CB-06-01	10 / 10	N/A	53	72	2
Zinc	250	J	3840	J	SD-CB-06-07	10 / 10	N/A	1421	2076	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	10500		214000		SD-CB-06-03	10 / 10	8060 - 11100	132800	169839	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-84
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION NRSE
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4880		9220		SD-NR-02	5 / 5	N/A	6652	8498	2
Antimony						0 / 5	1.7 - 2.2	0.92	1.0	2
Arsenic	106		221		SD-NR-02	5 / 5	N/A	166	214	2
Barium	25.4		65.5		SD-NR-01	5 / 5	N/A	41	56	2
Beryllium	0.3		0.94		SD-NR-02	5 / 5	N/A	0.50	0.75	2
Cadmium	0.95		2.7		SD-NR-01	4 / 5	0.49	1.3	2.2	2
Chromium	104		258		SD-NR-02	5 / 5	N/A	186	251	2
Cobalt	5.2		9.3		SD-NR-01	5 / 5	N/A	6.4	8.0	2
Copper	99.3		365		SD-NR-02	5 / 5	N/A	202	304	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	11500		25600		SD-NR-01	5 / 5	N/A	19420	24291	2
Lead	80.8		249		SD-NR-02	5 / 5	N/A	161	224	2
Manganese	95.4		317		SD-NR-01	5 / 5	N/A	164	248	2
Mercury	0.77		5.9		SD-NR-03	5 / 5	N/A	2.6	4.5	2
Nickel	7.8		16.1		SD-NR-01	5 / 5	N/A	11	14	2
Selenium	0.86	J	2.4	J	SD-NR-01	5 / 5	N/A	1.8	2.4	2
Silver	0.93		2.4		SD-NR-02	5 / 5	N/A	1.5	2.2	2
Thallium						0 / 5	1.7 - 2.2	0.93	1.0	2
Vanadium	16.4		32.6		SD-NR-02	5 / 5	N/A	24	31	2
Zinc	226	J	595	J	SD-NR-01	5 / 5	N/A	343	485	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	15900		59400		SD-NR-02	5 / 5	7250 - 8470	33460	52036	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-85
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION JY
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248						0 / 10	190 - 440	122	144	2
Aroclor 1254	230	J	2600		SD-JY-07	9 / 10	190 - 440	906	1366	2
Aroclor 1260	260		2400		SD-JY-07	9 / 10	190 - 440	990	1472	2
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	3950		17300		SD-JY-12	10 / 10	N/A	9592	12295	2
Antimony	3.1		19.5		SD-JY-08	5 / 10	1.8 - 2.1	5.4	20	*15
Arsenic	13.7	J	482		SD-JY-13	10 / 10	N/A	145	282	3
Barium	20		353	J	SD-JY-07	10 / 10	N/A	127	182	2
Beryllium	0.245	J	0.98	J	SD-JY-12	7 / 10	0.19 - 0.23	0.46	0.66	2
Cadmium	1.4		21		SD-JY-07	10 / 10	N/A	11	15	2
Chromium	69.6		1710	J	SD-JY-08	10 / 10	N/A	839	1170	2
Cobalt	5.9		24.5		SD-JY-10	10 / 10	N/A	13	17	2
Copper	122	J	741	J	SD-JY-08	10 / 10	N/A	378	502	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	8240	J	58700		SD-JY-07	10 / 10	N/A	28394	38229	2
Lead	47.6		1210		SD-JY-08	10 / 10	N/A	523	729	2
Manganese	103		555		SD-JY-13	10 / 10	N/A	293	365	2
Mercury	0.1	J	2.3		SD-JY-12	7 / 10	0.05 - 0.39	0.77	1.8	3
Nickel	8.7		150		SD-JY-07	10 / 10	N/A	52	75	2
Selenium	1.3	J	5.1	J	SD-JY-13	7 / 10	0.8 - 1.9	3.0	5.1	*15
Silver	0.385	J	1.8		SD-JY-12	7 / 10	0.19 - 0.21	0.70	1.0	2
Thallium	1.7	J	6.9	J	SD-JY-07	7 / 9	1.5 - 1.6	2.5	4.0	3
Vanadium	10.2		90.6		SD-JY-07	10 / 10	N/A	49	64	2
Zinc	308		2850		SD-JY-08	10 / 10	N/A	1820	2351	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	15400		218500		SD-JY-06	10 / 10	6800 - 9430	146670	218500	*13

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-86
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION WG
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	82	J	82	J	SD-19-01-ME	1 / 1	79	82	82	*1
Tetrachloroethene						0 / 1	237	119	0.0	*1
Trichloroethene	42	J	42	J	SD-19-01-ME	1 / 1	79	42	42	*1
SVOCs - ug/Kg										
2-Methylnaphthalene						0 / 1	6	3.0	0.0	*1
Acenaphthylene	1	J	1	J	SD-19-01-ME	1 / 1	1	1.0	1.0	*1
Anthracene	18	J	18	J	SD-19-01-ME	1 / 1	67	18	18	*1
Benzo(a)anthracene	130	J	130	J	SD-19-01-ME	1 / 1	67	130	130	*1
Benzo(a)pyrene	160	J	160	J	SD-19-01-ME	1 / 1	67	160	160	*1
Benzo(b)fluoranthene	290	J	290	J	SD-19-01-ME	1 / 1	67	290	290	*1
Benzo(g,h,i)perylene	120	J	120	J	SD-19-01-ME	1 / 1	67	120	120	*1
Benzo(k)fluoranthene	200	J	200	J	SD-19-01-ME	1 / 1	67	200	200	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	230	J	230	J	SD-19-01-ME	1 / 1	67	230	230	*1
Dibenz(a,h)anthracene	46	J	46	J	SD-19-01-ME	1 / 1	67	46	46	*1
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	410	J	410	J	SD-19-01-ME	1 / 1	67	410	410	*1
Fluorene	14	J	14	J	SD-19-01-ME	1 / 1	67	14	14	*1
Indeno(1,2,3-cd)pyrene	140	J	140	J	SD-19-01-ME	1 / 1	67	140	140	*1
Naphthalene	12	J	12	J	SD-19-01-ME	1 / 1	67	12	12	*1
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	160	J	160	J	SD-19-01-ME	1 / 1	67	160	160	*1
Pyrene	340	J	340	J	SD-19-01-ME	1 / 1	67	340	340	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD	9		9		SD-19-01-ME	1 / 1	0.33	9.0	9.0	*1
4,4'-DDE	3.2		3.2		SD-19-01-ME	1 / 1	0.33	3.2	3.2	*1
4,4'-DDT						0 / 1	0.33	0.17	0.0	*1
Aldrin						0 / 1	0.16	0.080	0.0	*1
alpha-Chlordane	0.98	J	0.98	J	SD-19-01-ME	1 / 1	0.16	0.98	0.98	*1
Aroclor 1248	35	J	35	J	SD-19-01-ME	1 / 1	3.3	35	35	*1
Aroclor 1254						0 / 1	3.3	1.7	0.0	1
Aroclor 1260	11		11		SD-19-01-ME	1 / 1	3.3	11	11	*1
beta-BHC						0 / 1	0.16	0.080	0.0	*1
delta-BHC						0 / 1	0.16	0.080	0.0	*1
Endosulfan I	0.44	J	0.44	J	SD-19-01-ME	1 / 1	0.16	0.44	0.44	*1
Endosulfan Sulfate						0 / 1	0.33	0.17	0.0	*1
Endrin Aldehyde						0 / 1	0.33	0.17	0.0	*1
gamma-Chlordane	0.59	J	0.59	J	SD-19-01-ME	1 / 1	0.16	0.59	0.59	*1
Metals - mg/Kg										
Aluminum	3140		25700		SD-WG-13	21 / 21	3.6284 - 6	13755	16081	2
Antimony	0.75	J	24.5	J	SD-WG-07	11 / 19	0.3628 - 6.6	6.0	9.2	3
Arsenic	6.6		1450	J	SD-WG-07	21 / 21	0.3628 - 0.4747	136	263	6
Barium	14.1		177		SD-WG-01	21 / 21	0.031 - 0.4747	79	94	2
Beryllium	0.27	J	2.9		SD-19-01-ME	20 / 21	0.047 - 0.1899	1.2	1.5	2
Cadmium	0.46		12.3		SD-WG-10	21 / 21	0.063 - 0.1899	5.2	6.4	2
Chromium	14.3		2570		SD-WG-10	21 / 21	0.094 - 0.4747	561	930	3
Cobalt	2.7	J	44.1		SD-WG-07	21 / 21	0.3628 - 0.64	16	21	3
Copper	18.8		1330		SD-WG-07	21 / 21	0.14 - 0.4747	483	627	2
Cyanide	0.32	J	2.5	J	SD-WG-19	15 / 20	0.0942 - 0.4748	0.87	1.3	3
Iron	4920		119000		SD-WG-07	21 / 21	0.98 - 6.9495	20480	28490	3
Lead	23.9		810		SD-WG-07	21 / 21	0.2177 - 0.46	429	521	2
Manganese	89.5		1910		SD-WG-01	21 / 21	0.031 - 0.4747	702	1015	3
Mercury	0.1	J	11.6	J	SD-WG-07	20 / 21	0.0048 - 0.3289	1.4	3.0	6
Nickel	4.8		79.2		SD-WG-20	21 / 21	0.25 - 0.4747	28	35	2
Selenium	0.66	J	8.6		SD-WG-02	20 / 21	0.1522 - 1.6	3.7	4.5	2
Silver	0.64	J	2.95	J	SD-WG-20	3 / 21	0.016 - 0.4747	0.38	0.96	13
Thallium	0.24	J	0.7	J	SD-WG-01	13 / 21	0.074 - 1.5	0.36	0.44	2
Vanadium	10.3		104.35		SD-WG-09	21 / 21	0.13 - 0.4747	54	65	2
Zinc	80.1		2080		SD-WG-10	21 / 21	0.28 - 0.4747	866	1086	2
Total Combustible Organics (mg/Kg)	686000	J	686000	J	SD-19-01-ME	1 / 1	2000	686000	686000	*1
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-87
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION WH
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	2700	J	2700	J	SD-WH-07-TR	1 / 1	190	2700	2700	*1
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene						0 / 1	600	300	0.0	*1
Acenaphthylene						0 / 1	600	300	0.0	*1
Anthracene						0 / 1	600	300	0.0	*1
Benzo(a)anthracene						0 / 1	600	300	0.0	*1
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene						0 / 1	600	300	0.0	*1
Benzo(g,h,i)perylene						0 / 1	600	300	0.0	*1
Benzo(k)fluoranthene	660	J	660	J	SD-WH-07-TR	1 / 1	720	660	660	*1
Carbazole						0 / 1	600	300	0.0	*1
Chrysene						0 / 1	600	300	0.0	*1
Dibenz(a,h)anthracene						0 / 1	600	300	0.0	*1
Dibenzofuran						0 / 1	600	300	0.0	*1
Fluoranthene						0 / 1	600	300	0.0	*1
Fluorene						0 / 1	600	300	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 1	600	300	0.0	*1
Naphthalene						0 / 1	600	300	0.0	*1
N-nitrosodiphenylamine						0 / 1	600	300	0.0	*1
Phenanthrene						0 / 1	600	300	0.0	*1
Pyrene						0 / 1	600	300	0.0	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD						0 / 1	4.9	2	0.0	*1
4,4'-DDE						0 / 1	4.9	2	0.0	*1
4,4'-DDT						0 / 1	4.9	2	0.0	*1
Aldrin						0 / 1	2.5	1.3	0.0	*1
alpha-Chlordane						0 / 1	2.5	1.3	0.0	*1
Aroclor 1248						0 / 1	4.9	25	0.0	*1
Aroclor 1254						0 / 1	4.9	25	0.0	*1
Aroclor 1260						0 / 1	4.9	25	0.0	*1
beta-BHC						0 / 1	2.5	1.3	0.0	*1
delta-BHC						0 / 1	2.5	1.3	0.0	*1
Endosulfan I						0 / 1	2.5	1.3	0.0	*1
Endosulfan Sulfate						0 / 1	4.9	2.5	0.0	*1
Endrin Aldehyde						0 / 1	4.9	2.5	0.0	*1
gamma-Chlordane						0 / 1	2.5	1.3	0.0	*1
Metals - mg/Kg										
Aluminum	4720		17500		SD-WH-02	11 / 11	4.1266 - 9.14	10695	13414	2
Antimony	9.9		35.4	J	SD-WH-09	11 / 11	0.4127 - 0.74	22	27	2
Arsenic	4.7		424		SD-WH-02	11 / 11	0.4127 - 1	114	424	*8
Barium	53.9		132		SD-WH-05	11 / 11	0.4 - 0.4799	81	94	2
Beryllium	0.28	J	1.6		SD-WH-04	11 / 11	0.1651 - 0.2	0.92	1.2	2
Cadmium	0.87	J	15.1	J	SD-WH-01	11 / 11	0.1651 - 0.6	5.9	10	3
Chromium	17.7		1170		SD-WH-02	11 / 11	0.4127 - 1	346	837	3
Cobalt	2.4	J	34.4		SD-WH-05	11 / 11	0.36 - 0.4799	12	21	3
Copper	23.8		572		SD-WH-02	11 / 11	0.4127 - 0.4799	248	572	*15
Cyanide	0.26	J	1.1		SD-WH-05	9 / 10	0.2232 - 0.3788	0.57	0.74	2
Iron	4020		76600		SD-WH-05	11 / 11	1.4 - 3.5747	24718	58501	5
Lead	771		2540		SD-WH-06	11 / 11	0.2476 - 0.6	1516	1851	2
Manganese	51.9		747		SD-WH-05	11 / 11	0.24 - 0.4799	250	442	3
Mercury	0.25	J	0.98	J	SD-WH-02	9 / 10	0.02 - 0.3294	0.54	0.70	2
Nickel	11.8		44		SD-WH-01	11 / 11	0.4127 - 0.8	24	42	13
Selenium	1.55	J	4.1	J	SD-WH-04	11 / 11	0.1574 - 1	2.7	3.3	2
Silver	0.46	J	0.46	J	SD-WH-01	1 / 11	0.4 - 1	0.26	0.32	2
Thallium	0.2225	J	1.5		SD-WH-01	9 / 11	0.236 - 1.1	0.56	0.85	3
Vanadium	32.3		163		SD-WH-04	11 / 11	0.4127 - 0.64	76	97	2
Zinc	181		3230		SD-WH-01	6 / 11	0.4127 - 634	978	2139	3
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	815000	J	815000	J	SD-WH-07-TR	1 / 1	250	815000	815000	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-88
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION WS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	3570		13500		SD-WS-08	10 / 10	3.3362 - 4.7156	8500	10523	2
Antimony	1.2	J	7.2	J	SD-WS-08	10 / 10	0.3336 - 0.4716	4.0	4.9	2
Arsenic	17.7		339		SD-WS-08	10 / 10	0.3336 - 0.4716	168	226	2
Barium	60.8		200		SD-WS-08	10 / 10	0.3336 - 0.4716	119	140	2
Beryllium	0.2	J	0.87		SD-WS-08	10 / 10	0.1334 - 0.1886	0.53	0.66	2
Cadmium	1.3		16.7		SD-WS-08	10 / 10	0.1334 - 0.1886	8.1	11	2
Chromium	67.7		1320		SD-WS-08	10 / 10	0.3336 - 0.4716	504	728	2
Cobalt	5.5		44.8		SD-WS-08	10 / 10	0.3336 - 0.4716	19	25	2
Copper	68		686		SD-WS-08	10 / 10	0.3336 - 0.4716	306	414	2
Cyanide	1.4	J	12.1	J	SD-WS-08	10 / 10	0.1443 - 0.567	3.6	5.7	3
Iron	12800	J	52400	J	SD-WS-08	10 / 10	1.3345 - 3.4992	29765	37159	2
Lead	165		490		SD-WS-08	10 / 10	0.2002 - 0.2829	295	367	2
Manganese	413	J	1420	J	SD-WS-06	10 / 10	0.3336 - 0.4716	1036	1215	2
Mercury	0.22	J	1.8	J	SD-WS-02	8 / 8	0.1275 - 0.3418	0.98	1.4	2
Nickel	17.4	J	46.3	J	SD-WS-08	10 / 10	0.3336 - 0.4716	30	36	2
Selenium	0.79	J	3.8	J	SD-WS-08	10 / 10	0.1554 - 0.9153	2.1	2.6	2
Silver						0 / 10	0.33 - 0.4716	0.21	0.22	2
Thallium	0.5	J	2.2	J	SD-WS-08	8 / 10	0.23 - 0.2746	0.76	1.1	2
Vanadium	22.2		56.1		SD-WS-08	10 / 10	0.3336 - 0.4716	37	45	2
Zinc	299		3440		SD-WS-08	10 / 10	0.3336 - 0.4716	1542	2044	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-89
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT REFERENCE POND LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	17.5	J	680		SD-MC-02	2 / 7	13 - 19	106
Acetone	23	J	2200	J	SD-MC-02	6 / 7	13	360
cis-1,2-Dichloroethene						0 / 2	12 - 25	9.3
Tetrachloroethene						0 / 8	13 - 36	9.9
Trichloroethene						0 / 8	12 - 25	8.4
SVOCs - ug/Kg								
2-Methylnaphthalene	22	J	22	J	SD-25-02-ME	1 / 8	67 - 3100	422
Acenaphthylene	22	J	22	J	SD-25-02-ME	1 / 8	67 - 3100	422
Anthracene	220	J	330		SD-25-02-ME	2 / 8	67 - 3100	462
Benzo(a)anthracene	510	J	4900	J	SD-25-02-FW	4 / 8	67 - 1000	1124
Benzo(a)pyrene	410	J	5100	J	SD-25-02-FW	4 / 8	67 - 1000	1102
Benzo(b)fluoranthene	150	J	5800	J	SD-25-02-FW	7 / 8	67 - 1000	1215
Benzo(g,h,i)perylene	190	J	2200	J	SD-25-02-FW	4 / 8	67 - 1000	568
Benzo(k)fluoranthene	630	J	6700	J	SD-25-02-FW	4 / 8	67 - 1000	1264
Carbazole	200	J	200	J	SD-25-03-FW	1 / 7	440 - 3100	478
Chrysene	500	J	5400	J	SD-25-02-FW	4 / 8	67 - 1000	1174
Dibenz(a,h)anthracene	130	J	1100	J	SD-25-02-FW	3 / 8	67 - 1000	381
Dibenzofuran						0 / 7	420 - 3100	479
Fluoranthene	190	J	11000	J	SD-25-02-FW	7 / 8	67 - 1000	2194
Fluorene	120		120		SD-25-02-ME	1 / 8	67 - 3100	434
Indeno(1,2,3-cd)pyrene	270	J	3700	J	SD-25-02-FW	4 / 8	67 - 1000	793
Naphthalene	32	J	32	J	SD-25-02-ME	1 / 8	67 - 3100	423
N-nitrosodiphenylamine						0 / 7	420 - 3100	479
Phenanthrene	450	J	3100	J	SD-25-02-FW	4 / 8	67 - 1000	943
Pyrene	1300	J	8100	J	SD-25-02-FW	3 / 8	67 - 1000	1671
PCBs/Pesticides - ug/Kg								
4,4'-DDD	11	J	59	J	SD-26-01-FW	5 / 8	0.32 - 31	21
4,4'-DDE	4.4	J	51	J	SD-26-01-FW	5 / 8	0.32 - 31	16
4,4'-DDT	2.1	J	30	J	SD-26-01-FW	4 / 8	0.32 - 30	12
Aldrin						0 / 8	0.16 - 16	5.3
alpha-Chlordane	1.3	J	8.4	J	SD-25-02-FW	2 / 8	0.16 - 15	5.5
Aroclor 1248	56	J	56	J	SD-25-02-ME	1 / 8	3.2 - 310	108
Aroclor 1254						0 / 8	3.2 - 310	101
Aroclor 1260	47		47		SD-25-02-ME	1 / 8	3.2 - 310	107
beta-BHC						0 / 8	0.16 - 16	5.3
delta-BHC						0 / 8	0.16 - 16	5.3
Endosulfan I	6.9	J	66	J	SD-25-02-FW	4 / 8	0.16 - 14	12.8
Endosulfan Sulfate	11	J	11	J	SD-25-02-FW	1 / 8	0.32 - 30	9.7
Endrin Aldehyde	4.4	J	4.4	J	SD-25-02-ME	1 / 7	0.32 - 31	12.1
gamma-Chlordane	1	J	1.3	J	SD-25-02-ME	2 / 8	0.16 - 16	4.9
Metals - mg/Kg								
Aluminum	7190		13500		SD-26-01-FW	8 / 8	3.4	9924
Antimony	0.64	J	1.7		SD-25-02-FW	6 / 8	0.062 - 0.84	0.86
Arsenic	2.5		29.9		SD-MC-02	8 / 8	0.21	10
Barium	18		80.7		SD-MC-02	8 / 8	0.018	47
Beryllium	0.23		1.1		SD-MC-02	8 / 8	0.027	0.46
Cadmium	0.78	J	2.9		SD-MC-02	3 / 8	0.0044 - 0.23	0.59
Chromium	8.9		155	J	SD-MC-02	8 / 8	0.053	43
Cobalt	3.7		12.1		SD-MC-02	8 / 8	0.36	7.7
Copper	10		93.7		SD-25-02-FW	8 / 8	0.08	42
Cyanide						0 / 6	0.65 - 1.1	0.43
Iron	8810		25500		SD-MC-02	8 / 8	0.55	15651
Lead	25.3	J	755	J	SD-25-02-FW	8 / 8	0.26	214
Manganese	87.1	J	837		SD-MC-02	8 / 8	0.018	260
Mercury	0.081	J	0.55	J	SD-25-02-FW	5 / 8	0.005 - 0.08	0.17
Nickel	5.9		19.6		SD-MC-02	8 / 8	0.14	14
Selenium	1.2	J	3.2	J	SD-25-02-FW	2 / 8	0.049 - 1.1	0.83
Silver	0.2	J	0.47		SD-MC-02	2 / 8	0.0088 - 0.68	0.25
Thallium	1		2.2		SD-25-02-FW	2 / 8	0.04 - 1.2	0.70
Vanadium	18.8		51.5		SD-MC-02	8 / 8	0.071	31
Zinc	35		377		SD-MC-02	8 / 8	0.16	141
Total Combustible Organics (mg/Kg)	59200	J	59200	J	SD-25-02-ME	1 / 1	2000	59200
Total Organic Carbon (mg/Kg)	12000		370000	J	SD-MC-02	7 / 7	N/A	86036

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-90
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT REFERENCE RIVER LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration
VOCs - ug/Kg								
2-Butanone	230		230		SD-MC-12	1 / 9	10 - 32	33
Acetone	44	J	670	J	SD-MC-12	4 / 10	13 - 220	114
cis-1,2-Dichloroethene						0 / 4	10 - 32	9.0
Tetrachloroethene						0 / 9	10 - 32	8.0
Trichloroethene						0 / 9	10 - 32	8.0
SVOCs - ug/Kg								
2-Methylnaphthalene	67	J	81	J	SD-MC-12	2 / 10	300 - 600	186
Acenaphthylene	150	J	450	J	SD-23-02-FW	5 / 10	380 - 600	250
Anthracene	150	J	990	J	SD-27-01-FW	6 / 10	380 - 600	359
Benzo(a)anthracene	210	J	2400	J	SD-27-01-FW	8 / 10	380 - 600	1049
Benzo(a)pyrene	250	J	2100		SD-MC-04	8 / 10	380 - 600	935
Benzo(b)fluoranthene	210	J	3000		SD-MC-04	9 / 10	380 - 600	1196
Benzo(g,h,i)perylene	500		1400		SD-MC-04	3 / 10	380 - 600	460
Benzo(k)fluoranthene	540	J	2200		SD-MC-04	7 / 10	380 - 600	1129
Carbazole	130	J	520	J	SD-27-01-FW	4 / 10	300 - 600	234
Chrysene	250	J	2600		SD-MC-04	8 / 10	380 - 600	1248
Dibenz(a,h)anthracene	110	J	350	J	SD-MC-04	5 / 10	380 - 600	235
Dibenzofuran	120	J	210	J	SD-27-01-FW	3 / 10	300 - 600	196
Fluoranthene	71	J	5500	J	SD-27-01-FW	10 / 10	380 - 430	2230
Fluorene	160	J	620	J	SD-27-01-FW	5 / 10	300 - 600	256
Indeno(1,2,3-cd)pyrene	160	J	1800		SD-MC-04	6 / 10	380 - 600	578
Naphthalene	110	J	160	J	SD-MC-12	2 / 10	300 - 600	202
N-nitrosodiphenylamine						0 / 10	300 - 600	211
Phenanthrene	220	J	4500	J	SD-27-01-FW	8 / 10	380 - 600	1442
Pyrene	81	J	3600		SD-23-02-FW	9 / 10	380 - 890	1859
PCBs/Pesticides - ug/Kg								
4,4'-DDD	5.7	J	200	J	SD-MC-01	8 / 10	3.1 - 21	41
4,4'-DDE	3.5	J	470	J	SD-MC-01	7 / 10	0.79 - 3.4	53
4,4'-DDT	3	J	180	J	SD-MC-01	6 / 10	0.79 - 6	25
Aldrin						0 / 10	0.76 - 12	2.3
alpha-Chlordane	23	J	23	J	SD-MC-01	1 / 10	0.79 - 12	4.6
Aroclor 1248						0 / 10	3 - 240	43
Aroclor 1254						0 / 10	3 - 240	43
Aroclor 1260						0 / 10	3 - 240	43
beta-BHC	0.75	J	0.75	J	SD-23-01-FW	1 / 10	0.76 - 12	2.2
delta-BHC						0 / 10	0.76 - 12	2.3
Endosulfan I	7.2	J	35	J	SD-27-02-FW	3 / 10	0.76 - 3.1	5.6
Endosulfan Sulfate	9.1	J	9.1	J	SD-27-02-FW	1 / 10	0.76 - 24	4.2
Endrin Aldehyde						0 / 7	3.1 - 24	6.0
gamma-Chlordane	0.31	J	0.31	J	SD-23-02-FW	1 / 10	0.76 - 12	2.2
Metals - mg/Kg								
Aluminum	1100		11600		SD-MC-04-TR	11 / 11	9.14	6157
Antimony	0.56	J	5.6		SD-MC-04-TR	8 / 11	0.43 - 0.74	1.23
Arsenic	4.1		44.5		SD-MC-04-TR	11 / 11	1	18
Barium	5.7		173		SD-MC-04-TR	11 / 11	0.4	57
Beryllium	0.15		1	J	SD-23-03-FW	10 / 11	0.19 - 0.2	0.47
Cadmium	0.08699		6.1		SD-MC-04	9 / 11	0.053 - 0.6	1.53
Chromium	9		512		SD-MC-04-TR	11 / 11	1	106
Cobalt	0.76		21.8	J	SD-MC-04-TR	11 / 11	0.36	7.9
Copper	1.9		344		SD-MC-04-TR	11 / 11	0.44	74
Cyanide						0 / 5	0.56 - 0.82	0.33
Iron	2040		51600		SD-MC-04-TR	11 / 11	1.4	15909
Lead	5.6	J	369		SD-MC-04-TR	11 / 11	0.6	101
Manganese	12.6	J	1980		SD-MC-04-TR	11 / 11	0.24	570
Mercury	0.03	J	0.6		SD-MC-04	7 / 10	0.0095 - 0.02	0.16
Nickel	1.1		25.8		SD-MC-04	11 / 11	0.8	12
Selenium	0.94	J	3	J	SD-23-03-FW	4 / 11	0.53 - 1	0.85
Silver	0.085	J	0.75		SD-MC-04	3 / 10	0.27 - 1	0.29
Thallium						0 / 10	0.36 - 1.1	0.38
Vanadium	2.5		53.8		SD-MC-04-TR	11 / 11	0.64	23
Zinc	10.4	J	611	J	SD-MC-04-TR	11 / 11	1.7	191
Total Combustible Organics (mg/Kg)	4800		427000		SD-23-03-FW	3 / 3	N/A	152033
Total Organic Carbon (mg/Kg)	7650		290000		SD-MC-04-TR	8 / 8	250	125131

N/A = Not Applicable or Not Available
J = Estimated Value

US EPA ARCHIVE DOCUMENT

TABLE 4-91
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT REFERENCE WETLAND LOCATIONS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone						0 / 5	13 - 46	8.6	13	3
Acetone						0 / 5	10 - 180	34	71	2
cis-1,2-Dichloroethene						0 / 3	16 - 46	12	0.0	*1
Tetrachloroethene						0 / 6	13 - 69	13	33	13
Trichloroethene						0 / 6	13 - 46	9.1	12	2
SVOCs - ug/Kg										
2-Methylnaphthalene	23	J	360	J	SD-24-02-FW	2 / 6	67 - 460	195	289	2
Acenaphthylene	44	J	800	J	SD-24-02-FW	3 / 6	67 - 460	243	690	3
Anthracene	48	J	1900	J	SD-24-02-FW	4 / 6	67 - 460	440	1656	3
Benzo(a)anthracene	110	J	5900		SD-24-02-FW	5 / 6	67 - 460	1360	5406	3
Benzo(a)pyrene	130	J	5500		SD-24-02-FW	5 / 6	67 - 460	1233	4904	3
Benzo(b)fluoranthene	180	J	10000		SD-24-02-FW	5 / 6	67 - 460	2188	9363	3
Benzo(g,h,i)perylene	210	J	920	J	SD-24-02-FW	3 / 6	67 - 460	376	627	2
Benzo(k)fluoranthene	400		9600		SD-24-02-FW	4 / 6	67 - 460	2023	9464	3
Carbazole	48	J	990	J	SD-24-02-FW	2 / 5	230 - 460	323	990	*3
Chrysene	140	J	7300		SD-24-02-FW	5 / 6	67 - 460	1610	6684	3
Dibenz(a,h)anthracene	120	J	500	J	SD-24-02-FW	2 / 6	67 - 460	234	350	2
Dibenzofuran	1000	J	1000	J	SD-24-02-FW	1 / 5	230 - 460	357	1000	*5
Fluoranthene	210	J	15000		SD-24-02-FW	5 / 6	67 - 460	3293	15000	*3
Fluorene	44	J	2800		SD-24-02-FW	4 / 6	67 - 460	568	1369	6
Indeno(1,2,3-cd)pyrene	210	J	1700	J	SD-24-02-FW	3 / 6	67 - 460	518	1405	3
Naphthalene	23	J	520	J	SD-24-02-FW	2 / 6	67 - 460	221	359	2
N-nitrosodiphenylamine						0 / 5	230 - 2100	367	2035	5
Phenanthrene	170	J	12000		SD-24-02-FW	5 / 6	67 - 570	2408	12000	*4
Pyrene	280		11000		SD-24-02-FW	5 / 6	67 - 460	2577	10736	3
PCBs/Pesticides - ug/Kg										
4,4'-DDD	4.5		390		SD-24-03-ME	5 / 6	1.9 - 3.6	95	390	*3
4,4'-DDE	3.9		37		SD-24-03-ME	5 / 6	1.9 - 3.6	13	23	2
4,4'-DDT	2.2		130		SD-24-02-FW	5 / 6	1.9 - 3.6	34	130	*3
Aldrin	0.29	J	1.6	J	SD-24-02-FW	3 / 6	0.93 - 1.8	0.77	1.1	2
alpha-Chlordane	2	J	5.3		SD-24-03-FW	2 / 6	0.93 - 2.4	1.8	4.2	3
Aroclor 1248	290	J	290	J	SD-24-03-ME	1 / 6	3.2 - 46	64	290	*15
Aroclor 1254						0 / 6	3.2 - 46	16	23	2
Aroclor 1260	200		200		SD-24-03-ME	1 / 6	3.2 - 46	49	200	*15
beta-BHC	0.4	J	0.4	J	SD-24-01-FW	1 / 6	0.93 - 2.2	0.79	0.40	*2
delta-BHC						0 / 6	0.93 - 2.4	0.93	1.1	2
Endosulfan I	0.22	J	0.22	J	SD-24-03-FW	1 / 6	0.93 - 2.4	0.78	0.22	*2
Endosulfan Sulfate	6.6		6.6		SD-24-01-FW	1 / 6	1.9 - 4.3	2.5	4.9	3
Endrin Aldehyde	1.1	J	5.9	J	SD-24-03-ME	2 / 6	1.9 - 4.6	2.4	4.6	3
gamma-Chlordane	1.5	J	4.6		SD-24-03-FW	3 / 6	0.93 - 2.4	2.1	3.6	2
Metals - mg/Kg										
Aluminum	2560		14300		SD-SA-01-TR	6 / 6	3.5 - 9.14	8195	12242	2
Antimony	0.5	J	1.2	J	SD-24-03-ME	4 / 6	0.067 - 1.4	0.75	1.0	2
Arsenic	3.8		40.6		SD-24-03-FW	6 / 6	0.22 - 1	21	33	2
Barium	13.3		87.5		SD-SA-01-TR	6 / 6	0.018 - 0.4	48	72	2
Beryllium	0.73	J	1.2		SD-24-03-FW	4 / 6	0.027 - 0.22	0.66	1.0	2
Cadmium	0.22		2.9		SD-HB-00-TR	6 / 6	0.35 - 0.6	1.3	2.2	2
Chromium	10.3	J	410	J	SD-24-03-ME	6 / 6	0.055 - 1	129	410	*3
Cobalt	1.9		13.2	J	SD-SA-01-TR	6 / 6	0.36 - 0.37	8.4	13	2
Copper	11.6		130		SD-24-03-ME	6 / 6	0.082 - 0.44	57	93	2
Cyanide						0 / 3	0.52 - 1.4	0.43	0.0	*1
Iron	4790		24200		SD-SA-01-TR	6 / 6	0.57 - 1.4	15518	22525	2
Lead	73.9		581		SD-24-03-FW	6 / 6	0.27 - 0.6	332	524	2
Manganese	50.4	J	263		SD-SA-01-TR	6 / 6	0.018 - 0.24	133	210	2
Mercury	0.021	J	0.71		SD-24-03-ME	5 / 6	0.005 - 0.02	0.28	0.71	*3
Nickel	6		27.3		SD-HB-00-TR	6 / 6	0.15 - 0.8	19	27	*13
Selenium	0.91	J	2.1		SD-24-03-FW	2 / 6	0.053 - 1	0.76	1.7	3
Silver	2.5	J	2.9		SD-24-03-FW	2 / 6	0.01 - 1	1.1	2.9	*3
Thallium						0 / 6	0.038 - 2	0.47	0.73	2
Vanadium	7.1		148		SD-24-03-FW	6 / 6	0.073 - 0.64	56	99	2
Zinc	47		251	J	SD-24-03-ME	6 / 6	0.16 - 1.7	155	232	2
Total Combustible Organics (mg/Kg)	2810		183000		SD-24-03-FW	4 / 4	2000	89178	183000	*2
Total Organic Carbon (mg/Kg)	170000		250000		SD-HB-00-TR	2 / 2	250	210000	250000	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit
[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.
[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-92
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT POND REFERENCE WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 3	2 - 5	2.0	0.0	*1
Acetone						0 / 3	5.0	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 3	1 - 2	0.67	0.0	*1
Tetrachloroethene						0 / 3	1 - 2	0.67	0.0	*1
Trichloroethene						0 / 3	1 - 2	0.67	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 3	5.0	2.5	0.0	*1
Acenaphthylene						0 / 3	5.0	2.5	0.0	*1
Anthracene						0 / 3	5.0	2.5	0.0	*1
Benzo(a)anthracene						0 / 3	5.0	2.5	0.0	*1
Benzo(a)pyrene						0 / 3	5.0	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 3	5.0	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 3	5.0	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 3	5.0	2.5	0.0	*1
Carbazole						0 / 1	5.0	2.5	0.0	*1
Chrysene						0 / 3	5.0	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 3	5.0	2.5	0.0	*1
Dibenzofuran						0 / 3	5.0	2.5	0.0	*1
Fluoranthene						0 / 3	5.0	2.5	0.0	*1
Fluorene						0 / 3	5.0	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 3	5.0	2.5	0.0	*1
Naphthalene						0 / 3	5.0	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 3	5.0	2.5	0.0	*1
Phenanthrene						0 / 3	5.0	2.5	0.0	*1
Pyrene						0 / 3	5.0	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 3	0.0092 - 0.1	0.035	0.0	*1
4,4'-DDE						0 / 3	0.0092 - 0.1	0.035	0.0	*1
4,4'-DDT						0 / 3	0.0092 - 0.1	0.035	0.0	*1
Aldrin						0 / 3	0.0092 - 0.05	0.018	0.0	*1
alpha-Chlordane						0 / 3	0.0092 - 0.05	0.018	0.0	*1
Aroclor 1248						0 / 3	0.046 - 1	0.34	0.0	*1
Aroclor 1254						0 / 3	0.046 - 1	0.34	0.0	*1
Aroclor 1260						0 / 3	0.046 - 1	0.34	0.0	*1
beta-BHC						0 / 3	0.0092 - 0.05	0.018	0.0	*1
delta-BHC						0 / 3	0.0092 - 0.05	0.018	0.0	*1
Endosulfan I						0 / 3	0.0092 - 0.05	0.018	0.0	*1
Endosulfan Sulfate						0 / 3	0.0092 - 0.1	0.035	0.0	*1
Endrin Aldehyde						0 / 3	0.0092 - 0.1	0.035	0.0	*1
gamma-Chlordane						0 / 3	0.0092 - 0.05	0.018	0.0	*1
Metals - ug/L										
Aluminum	47.15		121		SW-MC-02	2 / 3	29.2	61	121	*1
Antimony						0 / 3	1.1 - 18.3	3.4	0.0	*1
Arsenic	1.15	J	1.15	J	SW-MC-02	1 / 3	1 - 1.4	0.78	1.2	*1
Barium	22.55		40.5		SW-26-01	3 / 3	N/A	29	41	*1
Beryllium						0 / 3	0.099 - 0.22	0.070	0.0	*1
Cadmium						0 / 3	0.15 - 0.78	0.18	0.0	*1
Chromium						0 / 3	0.25 - 9	1.6	0.0	*1
Cobalt						0 / 3	0.5 - 3	0.67	0.0	*1
Copper	1		1.4		SW-26-01	2 / 3	1.4	1.0	1.4	*1
Cyanide						0 / 2	5	2.5	0.0	*1
Iron	118		3085		SW-MC-02	3 / 3	N/A	1141	3085	*1
Lead	0.665	J	1.15	J	SW-MC-02	2 / 3	0.75	0.73	1.2	*1
Manganese	46.4		285		SW-26-01	3 / 3	N/A	203	285	*1
Mercury	0.115		0.115		SW-25-01	1 / 3	0.04 - 0.08	0.058	0.12	*1
Nickel	0.78		1.15	J	SW-MC-02	2 / 3	0.5	0.73	1.2	*1
Selenium						0 / 3	1.1 - 1.8	0.78	0.0	*1
Silver						0 / 3	0.4 - 0.78	0.26	0.0	*1
Thallium						0 / 3	1.2 - 1.5	0.70	0.0	*1
Vanadium	0.85		2.4	J	SW-MC-02	2 / 3	0.55	1.2	2.4	*1
Zinc	1.375	J	2.7	J	SW-26-01	2 / 3	3.9	2.0	2.7	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-93
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT RIVER REFERENCE WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 5	2 - 5	1.6	3.2	13
Acetone						0 / 5	5.0	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 5	1 - 2	0.80	1.1	2
Tetrachloroethene						0 / 5	1 - 2	0.80	1.1	2
Trichloroethene						0 / 5	1 - 2	0.80	1.1	2
SVOCs - ug/L										
2-Methylnaphthalene						0 / 5	4 - 5	2.3	2.6	2
Acenaphthylene						0 / 5	4 - 5	2.3	2.6	2
Anthracene						0 / 5	4 - 5	2.3	2.6	2
Benzo(a)anthracene						0 / 5	4 - 5	2.3	2.6	2
Benzo(a)pyrene						0 / 5	4 - 5	2.3	2.6	2
Benzo(b)fluoranthene						0 / 5	4 - 5	2.3	2.6	2
Benzo(g,h,i)perylene						0 / 5	4 - 5	2.3	2.6	2
Benzo(k)fluoranthene						0 / 5	4 - 5	2.3	2.6	2
Carbazole						0 / 3	4 - 5	2.2	0.0	*1
Chrysene						0 / 5	4 - 5	2.3	2.6	2
Dibenz(a,h)anthracene						0 / 5	4 - 5	2.3	2.6	2
Dibenzofuran						0 / 5	4 - 5	2.3	2.6	2
Fluoranthene						0 / 5	4 - 5	2.3	2.6	2
Fluorene						0 / 5	4 - 5	2.3	2.6	2
Indeno(1,2,3-cd)pyrene						0 / 5	4 - 5	2.3	2.6	2
Naphthalene						0 / 5	4 - 5	2.3	2.7	2
N-nitrosodiphenylamine						0 / 5	4 - 5	2.3	2.6	2
Phenanthrene						0 / 5	4 - 5	2.3	2.6	2
Pyrene						0 / 5	4 - 5	2.3	2.6	2
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 5	0.0083 - 0.1	0.023	0.13	15
4,4'-DDE						0 / 5	0.0083 - 0.1	0.023	0.13	15
4,4'-DDT						0 / 5	0.0083 - 0.1	0.023	0.13	15
Aldrin						0 / 5	0.0083 - 0.05	0.013	0.035	13
alpha-Chlordane						0 / 5	0.0083 - 0.05	0.013	0.035	13
Aroclor 1248						0 / 5	0.042 - 1	0.21	1.4	15
Aroclor 1254						0 / 5	0.042 - 1	0.21	1.4	15
Aroclor 1260						0 / 5	0.042 - 1	0.21	1.4	15
beta-BHC						0 / 5	0.0083 - 0.05	0.013	0.035	13
delta-BHC						0 / 5	0.0083 - 0.05	0.013	0.035	13
Endosulfan I						0 / 5	0.0083 - 0.05	0.013	0.035	13
Endosulfan Sulfate						0 / 5	0.0083 - 0.1	0.023	0.13	15
Endrin Aldehyde						0 / 5	0.0083 - 0.1	0.023	0.13	15
gamma-Chlordane						0 / 5	0.0083 - 0.05	0.013	0.035	13
Metals - ug/L										
Aluminum	21.3		2500		SW-MC-01	4 / 5	23.5	567	12834	4
Antimony						0 / 5	1.1 - 18.3	5.7	27	15
Arsenic	1.1	J	15.7	J	SW-MC-01	4 / 5	1.7	4.5	19	3
Barium	15.4		64		SW-MC-01	5 / 5	N/A	32	50	2
Beryllium						0 / 5	0.099 - 0.22	0.086	0.12	2
Cadmium						0 / 5	0.15 - 0.78	0.26	0.60	13
Chromium	0.34		0.47		SW-23-01	2 / 5	9	2.9	13	15
Cobalt	7.1	J	7.1	J	SW-MC-01	1 / 5	0.5 - 3	2.1	10	3
Copper	0.45		13.8		SW-MC-01	4 / 5	0.35	3.7	22	3
Cyanide						0 / 2	5	2.5	0.0	*1
Iron	251		15800		SW-MC-01	5 / 5	N/A	3940	23025	3
Lead	4	J	51.4		SW-MC-01	3 / 5	0.75	12	258	4
Manganese	47.5		1960		SW-MC-01	5 / 5	N/A	650	1396	2
Mercury	0.097		0.11		SW-23-01	2 / 5	0.04 - 0.087	0.058	0.099	2
Nickel	0.66		6.5	J	SW-MC-01	4 / 5	1.2	2.0	7.2	3
Selenium	1.6	J	1.6	J	SW-MC-04	1 / 5	1.1 - 1.8	0.90	1.3	2
Silver						0 / 5	0.4 - 0.78	0.31	0.41	2
Thallium						0 / 5	1.2 - 1.5	0.66	0.74	2
Vanadium	0.89		12	J	SW-MC-01	2 / 5	0.55 - 2.6	3.2	16	3
Zinc	2.2	J	71.7		SW-MC-01	3 / 5	1.6 - 9	20	128	3

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-94
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SURFACE WATER AT WETLAND REFERENCE WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/L										
2-Butanone						0 / 1	5.0	2.5	0.0	*1
Acetone						0 / 1	5.0	2.5	0.0	*1
cis-1,2-Dichloroethene						0 / 1	1.0	0.50	0.0	*1
Tetrachloroethene						0 / 1	1.0	0.50	0.0	*1
Trichloroethene						0 / 1	1.0	0.50	0.0	*1
SVOCs - ug/L										
2-Methylnaphthalene						0 / 1	5.0	2.5	0.0	*1
Acenaphthylene						0 / 1	5.0	2.5	0.0	*1
Anthracene						0 / 1	5.0	2.5	0.0	*1
Benzo(a)anthracene						0 / 1	5.0	2.5	0.0	*1
Benzo(a)pyrene						0 / 1	5.0	2.5	0.0	*1
Benzo(b)fluoranthene						0 / 1	5.0	2.5	0.0	*1
Benzo(g,h,i)perylene						0 / 1	5.0	2.5	0.0	*1
Benzo(k)fluoranthene						0 / 1	5.0	2.5	0.0	*1
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene						0 / 1	5.0	2.5	0.0	*1
Dibenz(a,h)anthracene						0 / 1	5.0	2.5	0.0	*1
Dibenzofuran						0 / 1	5.0	2.5	0.0	*1
Fluoranthene						0 / 1	5.0	2.5	0.0	*1
Fluorene						0 / 1	5.0	2.5	0.0	*1
Indeno(1,2,3-cd)pyrene						0 / 1	5.0	2.5	0.0	*1
Naphthalene						0 / 1	5.0	2.5	0.0	*1
N-nitrosodiphenylamine						0 / 1	5.0	2.5	0.0	*1
Phenanthrene						0 / 1	5.0	2.5	0.0	*1
Pyrene						0 / 1	5.0	2.5	0.0	*1
PCBs/Pesticides - ug/L										
4,4'-DDD						0 / 1	0.10	0.050	0.0	*1
4,4'-DDE						0 / 1	0.10	0.050	0.0	*1
4,4'-DDT						0 / 1	0.10	0.050	0.0	*1
Aldrin						0 / 1	0.05	0.025	0.0	*1
alpha-Chlordane						0 / 1	0.05	0.025	0.0	*1
Aroclor 1248						0 / 1	1.0	0.50	0.0	*1
Aroclor 1254						0 / 1	1.0	0.50	0.0	*1
Aroclor 1260						0 / 1	1.0	0.50	0.0	*1
beta-BHC						0 / 1	0.05	0.025	0.0	*1
delta-BHC						0 / 1	0.05	0.025	0.0	*1
Endosulfan I						0 / 1	0.05	0.025	0.0	*1
Endosulfan Sulfate						0 / 1	0.1	0.050	0.0	*1
Endrin Aldehyde						0 / 1	0.1	0.050	0.0	*1
gamma-Chlordane	0.0017	J	0.0017	J	SW-24-01	1 / 1	N/A	0.0017	0.0017	*1
Metals - ug/L										
Aluminum	142		142		SW-24-01	1 / 1	N/A	142	142	*1
Antimony						0 / 1	1.1	0.55	0.0	*1
Arsenic	3.2		3.2		SW-24-01	1 / 1	N/A	3.2	3.2	*1
Barium	45.1		45.1		SW-24-01	1 / 1	N/A	45	45	*1
Beryllium						0 / 1	0.1	0.050	0.0	*1
Cadmium						0 / 1	0.2	0.075	0.0	*1
Chromium	0.88		0.88		SW-24-01	1 / 1	N/A	0.88	0.88	*1
Cobalt						0 / 1	0.5	0.25	0.0	*1
Copper	3.9		3.9		SW-24-01	1 / 1	N/A	3.9	3.9	*1
Cyanide						0 / 1	5	2.5	0.0	*1
Iron	2780		2780		SW-24-01	1 / 1	N/A	2780	2780	*1
Lead	6.3		6.3		SW-24-01	1 / 1	N/A	6.3	6.3	*1
Manganese	520		520		SW-24-01	1 / 1	N/A	520	520	*1
Mercury	0.13		0.13		SW-24-01	1 / 1	N/A	0.13	0.13	*1
Nickel	1.8		1.8		SW-24-01	1 / 1	N/A	1.8	1.8	*1
Selenium						0 / 1	1.9	0.95	0.0	*1
Silver						0 / 1	0.4	0.20	0.0	*1
Thallium						0 / 1	1.5	0.75	0.0	*1
Vanadium						0 / 1	0.55	0.28	0.0	*1
Zinc	16.1	J	16.1	J	SW-24-01	1 / 1	N/A	16	16	*1

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

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TABLE 4-95
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 20[1]
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[2]	95% UCL Ref[3]
VOCs - ug/Kg										
2-Butanone	107.5	J	107.5	J	SD-20-01-FW	1 / 1	N/A	108	108	*1
Acetone	94	J	590	J	SD-20-01-FW	2 / 2	N/A	342	590	*1
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	1000	J	1100	J	SD-20-02-FW	2 / 2	N/A	1050	1100	*1
Benzo(a)pyrene	730	J	1200	J	SD-20-02-FW	2 / 2	N/A	965	1200	*1
Benzo(b)fluoranthene	915	J	3700	J	SD-20-03-FW	3 / 3	N/A	2772	3700	*1
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	1400	J	1500	J	SD-20-03-FW	2 / 2	N/A	1450	1500	*1
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	770	J	3000	J	SD-20-02-FW	3 / 3	N/A	2223	3000	*1
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	830	J	830	J	SD-20-02-FW	1 / 1	N/A	830	830	*1
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	650	J	890	J	SD-20-02-FW	2 / 2	N/A	770	890	*1
Pyrene	1400	J	2500	J	SD-20-02-FW	2 / 2	N/A	1950	2500	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD	14	J	32	J	SD-20-02-FW	3 / 3	N/A	24	32	*1
4,4'-DDE	13	J	32	J	SD-20-02-FW	3 / 3	N/A	25	32	*1
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	14.5	J	49	J	SD-20-03-FW	3 / 3	N/A	35	49	*1
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	38	J	42	J	SD-20-03-FW	2 / 2	N/A	40	42	*1
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	11.9	J	11.9	J	SD-20-01-FW	1 / 1	N/A	12	12	*1
Metals - mg/Kg										
Aluminum	18450	J	29700	J	SD-20-03-FW	3 / 3	N/A	24983	29700	*1
Antimony	4	J	5.4	J	SD-20-03-FW	3 / 3	N/A	4.6	5.4	*1
Arsenic	264.5	J	321	J	SD-20-02-FW	3 / 3	N/A	299	321	*1
Barium	57.25	J	151	J	SD-20-02-FW	3 / 3	N/A	107	151	*1
Beryllium	1.55	J	2	J	SD-20-03-FW	3 / 3	N/A	1.8	2.0	*1
Cadmium	13.15	J	18.5	J	SD-20-03-FW	3 / 3	N/A	16	19	*1
Chromium	1450	J	1860	J	SD-20-02-FW	3 / 3	N/A	1587	1860	*1
Cobalt	25.9	J	46.3	J	SD-20-03-FW	3 / 3	N/A	38	46	*1
Copper	888	J	1075	J	SD-20-01-FW	3 / 3	N/A	998	1075	*1
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	24100	J	43800	J	SD-20-02-FW	3 / 3	N/A	34267	43800	*1
Lead	449.5	J	1200	J	SD-20-03-FW	3 / 3	N/A	877	1200	*1
Manganese	511	J	901.5	J	SD-20-01-FW	3 / 3	N/A	735	902	*1
Mercury	1	J	3.3	J	SD-20-03-FW	3 / 3	N/A	2.3	3.3	*1
Nickel	34.05	J	57.7	J	SD-20-03-FW	3 / 3	N/A	48	58	*1
Selenium	6.9	J	11.1	J	SD-20-01-FW	3 / 3	N/A	8.3	11	*1
Silver	1.6	J	1.6	J	SD-20-02-FW	1 / 1	N/A	1.6	1.6	*1
Thallium	4.4	J	4.4	J	SD-20-03-FW	1 / 1	N/A	4.4	4.4	*1
Vanadium	49.8	J	115	J	SD-20-03-FW	3 / 3	N/A	90	115	*1
Zinc	1670	J	3470	J	SD-20-02-FW	3 / 3	N/A	2840	3470	*1
Total Combustible Organics (mg/Kg)	234000		362000		SD-20-01-FW	3 / 3	N/A	281000	362000	*1
Total Organic Carbon (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit
[1] Includes samples applicable to the shrew model
[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.
concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-96
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SEDIMENT AT STATION 22/TT-22
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone						0 / 1	26	13	0.0	*1
Acetone	2400	J	2400	J	SD-22-01-TR	1 / 2	26 - 150	1207	2400	*1
cis-1,2-Dichloroethene	73	J	73	J	SD-22-02-ME	1 / 1	68	73	73	*1
Tetrachloroethene	120		3164		SD-22-02-ME	4 / 4	205	1131	2762	2
Trichloroethene	21	J	803		SD-22-02-ME	3 / 4	26 - 68	259	698	2
SVOCs - ug/Kg										
2-Methylnaphthalene	13	J	13	J	SD-22-02-ME	1 / 3	1 - 870	239	13	*1
Acenaphthylene	12	J	12	J	SD-22-02-ME	1 / 3	1 - 870	239	12	*1
Anthracene	46	J	46	J	SD-22-02-ME	1 / 3	67 - 870	250	46	*1
Benzo(a)anthracene	300		300		SD-22-02-ME	1 / 3	67 - 870	335	300	*1
Benzo(a)pyrene	200		200		SD-22-02-ME	1 / 2	67 - 870	318	200	*1
Benzo(b)fluoranthene	430	J	440		SD-22-02-ME	2 / 4	67 - 870	394	440	*2
Benzo(g,h,i)perylene	190		190		SD-22-02-ME	1 / 3	67 - 870	298	190	*1
Benzo(k)fluoranthene	290		540	J	SD-22-01-TR	2 / 3	67 - 870	422	540	*1
Carbazole						0 / 2	540 - 870	353	0.0	*1
Chrysene	400		400		SD-22-02-ME	1 / 3	67 - 870	368	400	*1
Dibenz(a,h)anthracene	44	J	44	J	SD-22-02-ME	1 / 3	67 - 870	250	44	*1
Dibenzofuran						0 / 2	540 - 870	353	0.0	*1
Fluoranthene	260	J	840		SD-22-02-ME	3 / 4	67 - 540	475	797	2
Fluorene	26	J	26	J	SD-22-02-ME	1 / 3	1 - 870	244	26	*1
Indeno(1,2,3-cd)pyrene	220		220		SD-22-02-ME	1 / 3	67 - 870	308	220	*1
Naphthalene	25	J	25	J	SD-22-02-ME	1 / 3	1 - 870	243	25	*1
N-nitrosodiphenylamine						0 / 2	540 - 870	353	0.0	*1
Phenanthrene	490		490		SD-22-02-ME	1 / 3	67 - 870	398	490	*1
Pyrene	610		610		SD-22-02-ME	1 / 3	67 - 870	438	610	*1
PCBs/Pesticides - ug/Kg										
4,4'-DDD	9.6	J	9.6	J	SD-22-02-ME	1 / 3	0.31 - 8.7	5.4	9.6	*1
4,4'-DDE	8.3	J	31		SD-22-02-ME	3 / 4	0.31 - 4.5	18	31	*2
4,4'-DDT	2.7	J	2.7	J	SD-22-02-ME	1 / 3	0.31 - 8.7	3.1	2.7	*1
Aldrin						0 / 3	0.15 - 4.5	1.2	0.0	*1
alpha-Chlordane	1.2	J	1.2	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.5	1.2	*1
Aroclor 1248	8.1	J	8.1	J	SD-22-02-ME	1 / 3	3.1 - 87	25	8.1	*1
Aroclor 1254						0 / 3	3.1 - 87	23	0.0	*1
Aroclor 1260	29		29		SD-22-02-ME	1 / 3	3.1 - 87	32	29	*1
beta-BHC						0 / 3	0.15 - 4.5	1.2	0.0	*1
delta-BHC	0.16	J	0.16	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.2	0.16	*1
Endosulfan I	0.18	J	4.4	J	SD-22-03-FW	4 / 5	0.15 - 2.3	2.5	4.3	2
Endosulfan Sulfate						0 / 3	0.31 - 8.7	2.3	0.0	*1
Endrin Aldehyde	3.3	J	3.3	J	SD-22-02-ME	1 / 3	0.31 - 8.7	3.3	3.3	*1
gamma-Chlordane	0.19	J	0.19	J	SD-22-02-ME	1 / 3	0.15 - 4.5	1.2	0.19	*1
Metals - mg/Kg										
Aluminum	2560		13200		SD-TT-22-03	8 / 8	3.6 - 9.14	4711	10258	13
Antimony	0.94	J	329	J	SD-TT-22-01	5 / 6	0.27 - 2.1	70	329	*4
Arsenic	5.2	J	87.3	J	SD-TT-22-01	5 / 6	0.23 - 3.7	21	77	3
Barium	20.3		51.4	J	SD-22-03-FW	8 / 8	0.019 - 0.4	41	49	2
Beryllium	0.2		1.1	J	SD-22-01-FW	8 / 8	0.028 - 0.2	0.49	0.69	2
Cadmium	0.2		1.7	J	SD-TT-22-02	7 / 7	0.0049 - 0.6	1.0	1.4	2
Chromium	7.1	J	85.3	J	SD-TT-22-02	8 / 8	0.056 - 1	25	65	5
Cobalt	1.3		7		SD-TT-22-03	8 / 8	0.36 - 0.39	2.8	4.3	3
Copper	9.6	J	37.5	J	SD-TT-22-03	8 / 8	0.085 - 0.44	23	29	2
Cyanide						0 / 1	1.3	0.65	0.0	*1
Iron	2310	J	11900		SD-TT-22-03	8 / 8	0.58 - 1.4	4245	9142	13
Lead	383	J	41000	J	SD-TT-22-01	8 / 8	0.27 - 0.6	6765	32501	8
Manganese	34.4	J	194	J	SD-TT-22-03	8 / 8	0.019 - 0.24	71	116	3
Mercury	0.05	J	0.5		SD-22-02-ME	4 / 6	0.0052 - 0.1	0.15	0.46	3
Nickel	3.9		18		SD-TT-22-03	8 / 8	0.15 - 0.8	7.8	11	3
Selenium	1.9	J	8.1	J	SD-22-02-ME	6 / 8	0.054 - 2	3.7	5.7	2
Silver	0.22	J	3.3	J	SD-TT-22-01	3 / 4	0.01 - 1	1.2	2.9	2
Thallium						0 / 6	0.039 - 1.2	0.43	0.57	2
Vanadium	8.5		50.1		SD-TT-22-03	8 / 8	0.075 - 0.64	31	41	2
Zinc	23		122	J	SD-TT-22-03	8 / 8	0.17 - 1.7	70	96	2
Total Combustible Organics (mg/Kg)	693000	J	693000	J	SD-22-02-ME	1 / 1	2000	693000	693000	*1
Total Organic Carbon (mg/Kg)	198000		514000		SD-22-03-FW	4 / 4	250	378250	514000	*2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-97
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SOIL AT STATION CB-05
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	4820		7240		SO-CB-05-08	10 / 10	N/A	5769	6210	2
Antimony	0.67	J	1.6		SO-CB-05-05	6 / 10	0.65 - 1.9	0.91	1.2	2
Arsenic	16.8		86.3		SO-CB-05-05	10 / 10	N/A	30	60	13
Barium	17.1		40.1		SO-CB-05-08	10 / 10	N/A	27	31	2
Beryllium	0.26	J	0.38	J	SO-CB-05-08	8 / 10	0.21 - 0.22	0.26	0.31	2
Cadmium	0.22	J	1.1		SO-CB-05-06	9 / 10	0.22	0.49	0.68	2
Chromium	13.4		211		SO-CB-05-03	10 / 10	N/A	56	138	5
Cobalt	3.7		9.5		SO-CB-05-05	10 / 10	N/A	5.6	6.6	2
Copper	26.5		82.9		SO-CB-05-05	10 / 10	N/A	40	50	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	6690		14500		SO-CB-05-05	10 / 10	N/A	10107	11469	2
Lead	28.9		90.9		SO-CB-05-05	10 / 10	N/A	50	62	2
Manganese	128	J	309		SO-CB-05-05	10 / 10	N/A	194	226	2
Mercury	0.07	J	0.6		SO-CB-05-05	10 / 10	N/A	0.17	0.29	5
Nickel	8.5		11.3		SO-CB-05-08	10 / 10	N/A	9.8	10	2
Selenium	1.1	J	1.2	J	SO-CB-05-05	2 / 10	0.65 - 0.83	0.52	0.98	13
Silver						0 / 10	0.21 - 0.27	0.12	0.12	2
Thallium	0.72	J	1.85	J	SO-CB-05-10	4 / 10	0.65 - 0.8	0.78	1.6	13
Vanadium	17.2		34.9		SO-CB-05-05	10 / 10	N/A	23	26	2
Zinc	60.7	J	259		SO-CB-05-06	10 / 10	N/A	130	166	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	19700		92100		SO-CB-05-05	10 / 10	5950 - 8850	54655	71146	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-98
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SOIL AT STATION DA
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	5160		10900		SO-DA-03	5 / 5	N/A	6979	9392	2
Antimony						0 / 5	1.9 - 2.2	1.0	1.1	2
Arsenic	21.8	J	272	J	SO-DA-03	5 / 5	N/A	99	195	2
Barium	11		90.6		SO-DA-03	5 / 5	N/A	35	66	2
Beryllium	0.24	J	0.53		SO-DA-03	2 / 5	0.21 - 0.24	0.22	0.53	3
Cadmium	0.3	J	4.6	J	SO-DA-03	4 / 5	0.23	1.4	4.6	*3
Chromium	32.6	J	550	J	SO-DA-03	5 / 5	N/A	193	391	2
Cobalt	2.8		25.7		SO-DA-03	5 / 5	N/A	9.0	26	*3
Copper	41.4	J	320	J	SO-DA-03	5 / 5	N/A	145	249	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	9240		37000		SO-DA-03	5 / 5	N/A	16868	33507	3
Lead	67.4	J	274	J	SO-DA-03	5 / 5	N/A	134	214	2
Manganese	58.1		2850		SO-DA-03	5 / 5	N/A	791	2850	*3
Mercury	0.31	J	3.4		SO-DA-03	5 / 5	N/A	1.2	3.4	*3
Nickel	6.5		22.2		SO-DA-03	5 / 5	N/A	11	17	2
Selenium	1.2	J	2	J	SO-DA-03	3 / 5	0.86	1.1	1.7	2
Silver	0.28	J	0.28	J	SO-DA-03	1 / 5	0.21 - 0.24	0.15	0.22	2
Thallium	1.6	J	3.4		SO-DA-03	2 / 5	1.5 - 1.7	1.5	3.3	3
Vanadium	14.1		41.9		SO-DA-03	5 / 5	N/A	27	38	2
Zinc	53.1		843		SO-DA-03	5 / 5	N/A	275	593	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	13100		87000		SO-DA-04	5 / 5	5880 - 10100	35440	63880	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-99
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SOIL AT STATION NRSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	2890		8250		SO-NR-20	5 / 5	N/A	4608	6701	2
Antimony						0 / 5	1.7 - 2	0.89	0.96	3
Arsenic	39.6		266		SO-NR-20	5 / 5	N/A	111	201	2
Barium	16.8		74.2		SO-NR-20	5 / 5	N/A	38	60	2
Beryllium	0.3		0.56		SO-NR-20	3 / 5	0.15 - 0.16	0.27	0.47	2
Cadmium	1.2		3		SO-NR-20	2 / 5	0.3 - 0.69	0.98	2.1	2
Chromium	40		228		SO-NR-20	5 / 5	N/A	98	172	2
Cobalt	2.95		12.8		SO-NR-20	5 / 5	N/A	6.0	9.8	2
Copper	38.6		228		SO-NR-20	5 / 5	N/A	97	171	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	7960		36900		SO-NR-20	5 / 5	N/A	17216	28575	2
Lead	35.6		187		SO-NR-20	5 / 5	N/A	85	144	2
Manganese	111		830		SO-NR-20	5 / 5	N/A	307	830	*3
Mercury	0.38		2		SO-NR-20	5 / 5	N/A	0.81	2.0	3
Nickel	4.25	J	14.9		SO-NR-20	4 / 5	4.9	8.2	13	2
Selenium	0.68	J	2.4	J	SO-NR-20	3 / 5	0.6	0.92	1.7	2
Silver	0.31	J	2.7		SO-NR-20	5 / 5	N/A	1.1	2.0	2
Thallium						0 / 5	1.7 - 2	0.90	0.96	2
Vanadium	8.75		31.8		SO-NR-20	5 / 5	N/A	16	25	2
Zinc	105	J	708	J	SO-NR-20	5 / 5	N/A	290	525	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	5100	J	54900		SO-NR-20	5 / 5	7140 - 8850	24400	44206	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-100
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SOIL AT STATION KFSO
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	3840		7550		SO-KF-05	10 / 10	N/A	5604	6302	2
Antimony						0 / 10	1.7 - 1.8	0.87	0.88	2
Arsenic	19.9		54.55		SO-KF-05	10 / 10	N/A	40	46	2
Barium	27.3		77.05		SO-KF-05	10 / 10	N/A	51	61	2
Beryllium	0.21		0.485	J	SO-KF-05	10 / 10	N/A	0.36	0.41	2
Cadmium	0.86		2.05	J	SO-KF-05	7 / 10	0.44 - 0.76	1.0	1.4	2
Chromium	48.4		141		SO-KF-02	10 / 10	N/A	102	120	2
Cobalt	5.5		13.35		SO-KF-05	10 / 10	N/A	9.0	10	2
Copper	50.6		143.5		SO-KF-05	10 / 10	N/A	91	108	2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	9840		21800		SO-KF-05	10 / 10	N/A	14884	17015	2
Lead	86.5		265.5		SO-KF-05	10 / 10	N/A	160	192	2
Manganese	245		1340		SO-KF-05	10 / 10	N/A	638	816	2
Mercury	0.27	J	0.855	J	SO-KF-05	10 / 10	N/A	0.59	0.69	2
Nickel	5.6		17.75		SO-KF-05	10 / 10	N/A	12	14	2
Selenium	0.65	J	0.87	J	SO-KF-10	2 / 10	0.58 - 0.6	0.39	0.51	2
Silver	0.47	J	0.875		SO-KF-05	9 / 10	0.4	0.59	0.70	2
Thallium						0 / 10	1.7 - 1.8	0.88	0.89	2
Vanadium	15.5		37.35		SO-KF-05	10 / 10	N/A	25	29	2
Zinc	181	J	489		SO-KF-05	10 / 10	N/A	334	393	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	12700		62500		SO-KF-02	10 / 10	7630 - 8620	42075	50481	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-101
SUMMARY OF ECOLOGICAL COPCs DETECTED IN SOIL AT STATION WSS
WELLS G&H SUPERFUND SITE (OU3)

Parameter	Minimum Detected Concentration	Minimum Qualifier	Maximum Detected Concentration	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Average Concentration	95% UCL / Max Detected Concentration[1]	95% UCL Ref[2]
VOCs - ug/Kg										
2-Butanone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acetone	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Trichloroethene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
SVOCs - ug/Kg										
2-Methylnaphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Acenaphthylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(a)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Carbazole	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Chrysene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenz(a,h)anthracene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Dibenzofuran	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluoranthene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Fluorene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Naphthalene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Phenanthrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Pyrene	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
PCBs/Pesticides - ug/Kg										
4,4'-DDD	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDE	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
4,4'-DDT	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aldrin	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
alpha-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1248	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1254	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Aroclor 1260	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
beta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
delta-BHC	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan I	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endosulfan Sulfate	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Endrin Aldehyde	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
gamma-Chlordane	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Metals - mg/Kg										
Aluminum	6530		9400		SO-SS-03	5 / 5	N/A	8088	9201	2
Antimony	0.76	J	0.76	J	SO-SS-05	1 / 5	1.7 - 1.8	0.86	0.76	*3
Arsenic	8.1		10.9		SO-SS-03	5 / 5	N/A	8.9	10	2
Barium	28.9		43.6		SO-SS-04	5 / 5	N/A	35	40	2
Beryllium	0.18	J	0.33	J	SO-SS-05	4 / 5	0.2	0.22	0.30	2
Cadmium	0.31	J	0.37	J	SO-SS-05	2 / 5	0.19 - 0.2	0.20	0.37	*13
Chromium	9.3		19.7		SO-SS-05	5 / 5	N/A	13	18	2
Cobalt	2.3		5.3		SO-SS-05	5 / 5	N/A	3.9	5.0	2
Copper	18.3		33.8	J	SO-SS-02	5 / 5	N/A	27	34	*2
Cyanide	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Iron	6600		10800		SO-SS-05	5 / 5	N/A	9233	10800	*2
Lead	55.5		93.3		SO-SS-03	5 / 5	N/A	68	82	2
Manganese	90.6		204		SO-SS-05	5 / 5	N/A	148	189	2
Mercury	0.09	J	0.13	J	SO-SS-01	5 / 5	N/A	0.10	0.12	2
Nickel	6.7		9.7		SO-SS-03	5 / 5	N/A	8.0	9.4	2
Selenium	0.76	J	0.76	J	SO-SS-05	1 / 5	0.77 - 1.4	0.55	0.71	2
Silver						0 / 5	0.19 - 0.2	0.099	0.10	2
Thallium	1.5	J	1.5	J	SO-SS-01	1 / 5	0.6 - 1.4	0.77	1.2	2
Vanadium	13.1		24.3		SO-SS-03	5 / 5	N/A	19	24	2
Zinc	33.5		81.5	J	SO-SS-05	5 / 5	N/A	54	72	2
Total Combustible Organics (mg/Kg)	N/A		N/A		N/A	0 / 0	N/A	N/A	N/A	N/A
Total Organic Carbon (mg/Kg)	21800		36600		SO-SS-05	5 / 5	7140 - 8330	27850	33283	2

N/A = Not Applicable or Not Available
J = Estimated Value
UCL = Upper Confidence Limit

[1] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the maximum exposure case calculations, is provided.

[2] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

US EPA ARCHIVE DOCUMENT

TABLE 4-102
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 21
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.6	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.2	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.038	1.86	USEPA, 1995	1.83	22	1.71E-03	1.82E+01	0.031
Tetrachloroethene	0.038	2.67	USEPA, 1995	2.62	139	2.70E-04	1.17E+02	0.032
Trichloroethene	0.019	2.71	USEPA, 1995	2.66	152	1.25E-04	1.29E+02	0.016
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.140	3.86	USEPA, 1992	3.79	2050	6.83E-05	1.82E+03	0.124
Acenaphthylene	0.038	4.07	USEPA, 1992	4.00	3298	1.15E-05	2.95E+03	0.034
Anthracene	0.420	4.45	USEPA, 1992	4.37	7795	5.39E-05	7.08E+03	0.381
Benzo(a)anthracene	0.390	5.61	USEPA, 1992	5.51	107673	3.62E-06	1.02E+05	0.371
Benzo(a)pyrene	0.890	5.98	USEPA, 1992	5.88	248780	3.58E-06	2.40E+05	0.858
Benzo(b)fluoranthene	1.607	6.57	USEPA, 1992	6.46	945771	1.70E-06	9.33E+05	1.585
Benzo(g,h,i)perylene	0.710	7.23	USEPA, 1992	7.11	4212752	1.69E-07	4.27E+06	0.719
Benzo(k)fluoranthene	0.034	6.84	USEPA, 1992	6.72	1742593	1.92E-08	1.74E+06	0.033
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.940	5.61	USEPA, 1992	5.51	107673	8.73E-06	1.02E+05	0.893
Dibenz(a,h)anthracene	0.240	5.97	USEPA, 1992	5.87	243213	9.87E-07	2.34E+05	0.231
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3693	0.00E+00	3.31E+03	0.000
Fluoranthene	1.623	5.33	USEPA, 1992	5.24	57130	2.84E-05	5.37E+04	1.526
Fluorene	0.240	4.18	USEPA, 1992	4.11	4231	5.67E-05	3.80E+03	0.216
Indeno(1,2,3-cd)pyrene	0.620	7.66	USEPA, 1992	7.53	11149513	5.56E-08	1.15E+07	0.638
Naphthalene	1.900	3.37	USEPA, 1992	3.31	676	2.81E-03	5.89E+02	1.654
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	182	0.00E+00	1.55E+02	0.000
Phenanthrene	0.600	4.46	USEPA, 1992	4.38	7974	7.52E-05	7.24E+03	0.545
Pyrene	1.440	5.18	USEPA, 1992	5.09	40683	3.54E-05	3.80E+04	1.346
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.030	5.99	USEPA, 1992	5.89	254475	1.18E-07	2.45E+05	0.029
4,4'-DDE	0.031	5.69	USEPA, 1992	5.59	129046	2.40E-07	1.23E+05	0.030
4,4'-DDT	0.004	6.19	USEPA, 1992	6.09	400171	1.10E-08	3.89E+05	0.004
Aldrin	0.001	6.5	USEPA, 1995	6.39	807190	9.91E-10	7.94E+05	0.001
alpha-Chlordane [f]	0.050	6.32	USEPA, 1992	6.21	537076	9.37E-08	5.25E+05	0.049
Aroclor 1248	0.240	6.2	HSDB, 2000	6.09	409332	5.86E-07	3.98E+05	0.233
Arclor 1254	0.002	6.5	ATSDR, 2000	6.39	807190	1.98E-09	7.94E+05	0.002
Aroclor 1260	0.420	6.8	ATSDR, 2000	6.68	1591754	2.64E-07	1.58E+06	0.418
beta-BHC	0.001	3.81	USEPA, 1995	3.75	1831	4.37E-07	1.62E+03	0.001
delta-BHC	0.002	4.14	USEPA, 1992	4.07	3865	4.66E-07	3.47E+03	0.002
Endosulfan I	0.035	4.1	USEPA, 1995	4.03	3530	1.00E-05	3.16E+03	0.032
Endosulfan Sulfate	0.002	3.66	USEPA, 1992	3.60	1304	1.23E-06	1.15E+03	0.001
Endrin Aldehyde	0.009	5.6	USEPA, 1992	5.51	105263	8.55E-08	1.00E+05	0.009
gamma-Chlordane [f]	0.033	6.32	USEPA, 1995	6.21	537076	6.14E-08	5.25E+05	0.032

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TABLE 4-102
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 21
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	13648							736.5
Antimony	2							0.2
Arsenic	175							1.5
Barium	128							7.3
Beryllium	1							0.1
Cadmium	18							12.9
Chromium	2400							1.1
Cobalt	23							1.8
Copper	457							4.3
Cyanide	0							0.0
Iron	21950							1324.0
Lead	527							20.1
Manganese	208							2.7
Mercury	10							0.1
Nickel	33							2.5
Selenium	3							0.3
Silver	0							0.0
Thallium	0							0.0
Vanadium	54							4.3
Zinc	3563							198.5

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al*., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.329$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al*. (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-103
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION BW
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.5	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.2	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.417	1.86	USEPA, 1995	1.83	19	2.16E-02	1.82E+01	0.392
Tetrachloroethene	0.155	2.67	USEPA, 1995	2.62	121	1.28E-03	1.17E+02	0.150
Trichloroethene	0.053	2.71	USEPA, 1995	2.66	132	4.00E-04	1.29E+02	0.052
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.013	3.86	USEPA, 1992	3.79	1789	7.27E-06	1.82E+03	0.013
Acenaphthylene	0.019	4.07	USEPA, 1992	4.00	2877	6.60E-06	2.95E+03	0.019
Anthracene	0.069	4.45	USEPA, 1992	4.37	6800	1.01E-05	7.08E+03	0.072
Benzo(a)anthracene	0.560	5.61	USEPA, 1992	5.51	93927	5.96E-06	1.02E+05	0.610
Benzo(a)pyrene	1.000	5.98	USEPA, 1992	5.88	217021	4.61E-06	2.40E+05	1.105
Benzo(b)fluoranthene	1.500	6.57	USEPA, 1992	6.46	825034	1.82E-06	9.33E+05	1.697
Benzo(g,h,i)perylene	0.640	7.23	USEPA, 1992	7.11	3674954	1.74E-07	4.27E+06	0.743
Benzo(k)fluoranthene	0.720	6.84	USEPA, 1992	6.72	1520134	4.74E-07	1.74E+06	0.823
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.850	5.61	USEPA, 1992	5.51	93927	9.05E-06	1.02E+05	0.926
Dibenz(a,h)anthracene	0.320	5.97	USEPA, 1992	5.87	212164	1.51E-06	2.34E+05	0.354
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3222	0.00E+00	3.31E+03	0.000
Fluoranthene	1.200	5.33	USEPA, 1992	5.24	49837	2.41E-05	5.37E+04	1.293
Fluorene	0.047	4.18	USEPA, 1992	4.11	3691	1.27E-05	3.80E+03	0.048
Indeno(1,2,3-cd)pyrene	0.740	7.66	USEPA, 1992	7.53	9726171	7.61E-08	1.15E+07	0.874
Naphthalene	0.026	3.37	USEPA, 1992	3.31	590	4.41E-05	5.89E+02	0.026
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	159	0.00E+00	1.55E+02	0.000
Phenanthrene	0.570	4.46	USEPA, 1992	4.38	6956	8.19E-05	7.24E+03	0.594
Pyrene	1.000	5.18	USEPA, 1992	5.09	35490	2.82E-05	3.80E+04	1.071
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.017	5.99	USEPA, 1992	5.89	221989	7.66E-08	2.45E+05	0.019
4,4'-DDE	0.004	5.69	USEPA, 1992	5.59	112572	3.55E-08	1.23E+05	0.004
4,4'-DDT	0.001	6.19	USEPA, 1992	6.09	349086	3.72E-09	3.89E+05	0.001
Aldrin	0.000	6.5	USEPA, 1995	6.39	704145	1.21E-10	7.94E+05	0.000
alpha-Chlordane [f]	0.002	6.32	USEPA, 1992	6.21	468513	5.12E-09	5.25E+05	0.003
Aroclor 1248	0.028	6.2	HSDB, 2000	6.09	357077	7.84E-08	3.98E+05	0.031
Arclor 1254	0.002	6.5	ATSDR, 2000	6.39	704145	2.34E-09	7.94E+05	0.002
Aroclor 1260	0.058	6.8	ATSDR, 2000	6.68	1388551	4.18E-08	1.58E+06	0.066
beta-BHC	0.000	3.81	USEPA, 1995	3.75	1597	5.32E-08	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	3371	2.52E-08	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	3079	2.76E-08	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1137	1.45E-07	1.15E+03	0.000
Endrin Aldehyde	0.002	5.6	USEPA, 1992	5.51	91825	1.96E-08	1.00E+05	0.002
gamma-Chlordane [f]	0.002	6.32	USEPA, 1995	6.21	468513	3.63E-09	5.25E+05	0.002

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TABLE 4-103
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION BW
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	18558							1001.6
Antimony	22							1.8
Arsenic	1239							5.8
Barium	129							7.4
Beryllium	1							0.1
Cadmium	11							8.6
Chromium	1518							1.2
Cobalt	40							3.2
Copper	899							5.1
Cyanide	0							0.0
Iron	111725							6739.0
Lead	607							22.5
Manganese	1036							8.0
Mercury	7							0.1
Nickel	36							2.5
Selenium	10							0.8
Silver	1							0.1
Thallium	8							0.7
Vanadium	81							6.4
Zinc	2102							167.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.287$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-104
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

US EPA ARCHIVE DOCUMENT

TABLE 4-104
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	11886							641.5
Antimony	1							0.1
Arsenic	41							0.5
Barium	40							2.3
Beryllium	1							0.1
Cadmium	5							4.9
Chromium	217							1.3
Cobalt	6							0.5
Copper	389							4.1
Cyanide	0							0.0
Iron	11059							667.1
Lead	317							13.3
Manganese	338							3.8
Mercury	2							0.1
Nickel	9							3.5
Selenium	4							0.4
Silver	0							0.0
Thallium	1							0.1
Vanadium	54							4.3
Zinc	422							98.6

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-105
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

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TABLE 4-105
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	4439							239.5
Antimony	2							0.1
Arsenic	27							0.4
Barium	79							4.5
Beryllium	0							0.0
Cadmium	3							3.2
Chromium	106							1.4
Cobalt	4							0.3
Copper	75							2.7
Cyanide	0							0.0
Iron	5914							356.7
Lead	119							6.0
Manganese	56							1.1
Mercury	0							0.1
Nickel	8							3.6
Selenium	1							0.2
Silver	0							0.0
Thallium	0							0.0
Vanadium	27							2.1
Zinc	250							83.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-106
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

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TABLE 4-106
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	9264							500.0
Antimony	2							0.1
Arsenic	272							2.0
Barium	52							2.9
Beryllium	1							0.0
Cadmium	7							6.4
Chromium	457							1.3
Cobalt	19							1.5
Copper	269							3.7
Cyanide	0							0.0
Iron	30996							1869.6
Lead	196							9.0
Manganese	283							3.3
Mercury	1							0.1
Nickel	26							2.7
Selenium	4							0.4
Silver	1							0.0
Thallium	1							0.1
Vanadium	47							3.7
Zinc	1148							136.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-107
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	12	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	73	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	80	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	1084	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1744	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	4123	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	56945	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	131574	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	500195	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	2228021	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	921614	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	56945	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	128629	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1953	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	30215	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	2238	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5896703	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	358	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	96	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	4217	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	21516	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	134586	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	68249	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	211641	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	426903	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	284046	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	216486	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	426903	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	841839	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	968	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	2044	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1867	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	690	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	55671	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	284046	0.00E+00	5.25E+05	0.000

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TABLE 4-107
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	9437							509.3
Antimony	4							0.3
Arsenic	112							1.1
Barium	61							3.5
Beryllium	1							0.0
Cadmium	4							3.9
Chromium	167							1.3
Cobalt	9							0.7
Copper	185							3.4
Cyanide	0							0.0
Iron	23967							1445.6
Lead	208							9.5
Manganese	404							4.2
Mercury	1							0.1
Nickel	41							2.4
Selenium	3							0.3
Silver	1							0.1
Thallium	1							0.1
Vanadium	55							4.4
Zinc	1397							146.1

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.174$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

US EPA ARCHIVE DOCUMENT

TABLE 4-108
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	9	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	56	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	61	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	829	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1333	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3151	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	43527	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	100571	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	382333	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1703027	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	704452	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	43527	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	98320	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1493	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	23095	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1710	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4507250	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	273	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	74	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3223	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	16446	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	102873	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	52168	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	161771	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	326311	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	217116	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	165475	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	326311	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	643475	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	740	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1562	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1427	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	527	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	42553	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	217116	0.00E+00	5.25E+05	0.000

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TABLE 4-108
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	7195							388.3
Antimony	2							0.1
Arsenic	98							1.0
Barium	40							2.3
Beryllium	0							0.0
Cadmium	9							7.3
Chromium	280							1.3
Cobalt	9							0.7
Copper	180							3.3
Cyanide	0							0.0
Iron	12693							765.6
Lead	137							6.8
Manganese	79							1.4
Mercury	0							0.1
Nickel	19							2.9
Selenium	1							0.2
Silver	0							0.0
Thallium	3							0.3
Vanadium	53							4.2
Zinc	1421							146.8

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.133$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-109
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	14	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	15	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	206	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	331	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	782	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	10800	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	24954	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	94865	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	422556	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	174789	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	10800	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	24395	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	370	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	5730	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	424	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1118340	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	68	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	18	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	800	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	4081	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	25525	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	12944	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	40139	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	80964	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	53871	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	41058	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	80964	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	159659	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	184	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	388	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	354	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	131	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	10558	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	53871	0.00E+00	5.25E+05	0.000

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TABLE 4-109
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	6652							359.0
Antimony	1							0.1
Arsenic	166							1.4
Barium	41							2.4
Beryllium	1							0.0
Cadmium	1							1.7
Chromium	186							1.3
Cobalt	6							0.5
Copper	202							3.4
Cyanide	0							0.0
Iron	19420							1171.4
Lead	161							7.7
Manganese	164							2.3
Mercury	3							0.1
Nickel	11							3.4
Selenium	2							0.2
Silver	2							0.1
Thallium	1							0.1
Vanadium	24							1.9
Zinc	343							92.1

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.033$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-110
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION JY
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	62	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	68	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	916	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1474	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3483	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	111157	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	422578	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1882293	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	778605	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	108669	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1650	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	25526	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1890	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4981697	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	302	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	81	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3563	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18178	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	113702	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	57659	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	178800	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	360659	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	239970	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.122	6.2	HSDB, 2000	6.09	182893	6.64E-07	3.98E+05	0.264
Arclor 1254	0.906	6.5	ATSDR, 2000	6.39	360659	2.51E-06	7.94E+05	1.995
Aroclor 1260	0.990	6.8	ATSDR, 2000	6.68	711209	1.39E-06	1.58E+06	2.206
beta-BHC	0.000	3.81	USEPA, 1995	3.75	818	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1727	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1577	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	583	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	47032	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	239970	0.00E+00	5.25E+05	0.000

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TABLE 4-110
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION JY
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	9592							517.7
Antimony	5							0.4
Arsenic	145							1.3
Barium	127							7.2
Beryllium	0							0.0
Cadmium	11							8.9
Chromium	839							1.2
Cobalt	13							1.0
Copper	378							4.1
Cyanide	0							0.0
Iron	28394							1712.7
Lead	523							20.0
Manganese	293							3.4
Mercury	1							0.1
Nickel	52							2.2
Selenium	3							0.3
Silver	1							0.1
Thallium	3							0.2
Vanadium	49							3.9
Zinc	1820							159.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.147$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-111
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WG
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	1.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.4	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.082	1.86	USEPA, 1995	1.83	46	1.77E-03	1.82E+01	0.032
Tetrachloroethene	0.119	2.67	USEPA, 1995	2.62	289	4.10E-04	1.17E+02	0.048
Trichloroethene	0.042	2.71	USEPA, 1995	2.66	317	1.33E-04	1.29E+02	0.017
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.003	3.86	USEPA, 1992	3.79	4275	7.02E-07	1.82E+03	0.001
Acenaphthylene	0.001	4.07	USEPA, 1992	4.00	6877	1.45E-07	2.95E+03	0.000
Anthracene	0.018	4.45	USEPA, 1992	4.37	16254	1.11E-06	7.08E+03	0.008
Benzo(a)anthracene	0.130	5.61	USEPA, 1992	5.51	224509	5.79E-07	1.02E+05	0.059
Benzo(a)pyrene	0.160	5.98	USEPA, 1992	5.88	518733	3.08E-07	2.40E+05	0.074
Benzo(b)fluoranthene	0.290	6.57	USEPA, 1992	6.46	1972033	1.47E-07	9.33E+05	0.137
Benzo(g,h,i)perylene	0.120	7.23	USEPA, 1992	7.11	8784036	1.37E-08	4.27E+06	0.058
Benzo(k)fluoranthene	0.200	6.84	USEPA, 1992	6.72	3633491	5.50E-08	1.74E+06	0.096
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.230	5.61	USEPA, 1992	5.51	224509	1.02E-06	1.02E+05	0.105
Dibenz(a,h)anthracene	0.046	5.97	USEPA, 1992	5.87	507124	9.07E-08	2.34E+05	0.021
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	7701	0.00E+00	3.31E+03	0.000
Fluoranthene	0.410	5.33	USEPA, 1992	5.24	119123	3.44E-06	5.37E+04	0.185
Fluorene	0.014	4.18	USEPA, 1992	4.11	8822	1.59E-06	3.80E+03	0.006
Indeno(1,2,3-cd)pyrene	0.140	7.66	USEPA, 1992	7.53	23247921	6.02E-09	1.15E+07	0.069
Naphthalene	0.012	3.37	USEPA, 1992	3.31	1410	8.51E-06	5.89E+02	0.005
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	379	0.00E+00	1.55E+02	0.000
Phenanthrene	0.160	4.46	USEPA, 1992	4.38	16626	9.62E-06	7.24E+03	0.070
Pyrene	0.340	5.18	USEPA, 1992	5.09	84829	4.01E-06	3.80E+04	0.152
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.009	5.99	USEPA, 1992	5.89	530608	1.70E-08	2.45E+05	0.004
4,4'-DDE	0.003	5.69	USEPA, 1992	5.59	269075	1.19E-08	1.23E+05	0.001
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	834400	1.98E-10	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	1683078	4.75E-11	7.94E+05	0.000
alpha-Chlordane [f]	0.001	6.32	USEPA, 1992	6.21	1119861	8.75E-10	5.25E+05	0.000
Aroclor 1248	0.035	6.2	HSDB, 2000	6.09	853501	4.10E-08	3.98E+05	0.016
Arclor 1254	0.002	6.5	ATSDR, 2000	6.39	1683078	9.80E-10	7.94E+05	0.001
Aroclor 1260	0.011	6.8	ATSDR, 2000	6.68	3318976	3.31E-09	1.58E+06	0.005
beta-BHC	0.000	3.81	USEPA, 1995	3.75	3818	2.10E-08	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	8058	9.93E-09	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	7360	5.98E-08	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	2719	6.07E-08	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	219485	7.52E-10	1.00E+05	0.000
gamma-Chlordane [f]	0.001	6.32	USEPA, 1995	6.21	1119861	5.27E-10	5.25E+05	0.000

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TABLE 4-111
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WG
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	13755							742.3
Antimony	6							0.5
Arsenic	136							1.2
Barium	79							4.5
Beryllium	1							0.1
Cadmium	5							4.9
Chromium	561							1.2
Cobalt	16							1.2
Copper	483							4.3
Cyanide	1							0.1
Iron	20480							1235.3
Lead	429							17.0
Manganese	702							6.2
Mercury	1							0.1
Nickel	28							2.6
Selenium	4							0.4
Silver	0							0.0
Thallium	0							0.0
Vanadium	54							4.3
Zinc	866							124.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.686$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-112
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WH
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	1.5	0.00E+00	4.79E-01	0.000
Acetone	2.700	-0.24	USEPA, 1995	-0.24	0.5	5.70E+00	1.45E-01	0.824
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	55	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	344	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	376	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.300	3.86	USEPA, 1992	3.79	5079	5.91E-05	1.82E+03	0.107
Acenaphthylene	0.300	4.07	USEPA, 1992	4.00	8170	3.67E-05	2.95E+03	0.108
Anthracene	0.300	4.45	USEPA, 1992	4.37	19310	1.55E-05	7.08E+03	0.110
Benzo(a)anthracene	0.300	5.61	USEPA, 1992	5.51	266727	1.12E-06	1.02E+05	0.115
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	616279	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.300	6.57	USEPA, 1992	6.46	2342867	1.28E-07	9.33E+05	0.120
Benzo(g,h,i)perylene	0.300	7.23	USEPA, 1992	7.11	10435845	2.87E-08	4.27E+06	0.123
Benzo(k)fluoranthene	0.660	6.84	USEPA, 1992	6.72	4316757	1.53E-07	1.74E+06	0.266
Carbazole	0.300	na	na	na	na	na	na	na
Chrysene	0.300	5.61	USEPA, 1992	5.51	266727	1.12E-06	1.02E+05	0.115
Dibenz(a,h)anthracene	0.300	5.97	USEPA, 1992	5.87	602487	4.98E-07	2.34E+05	0.117
Dibenzofuran	0.300	4.12	USEPA, 1992	4.05	9150	3.28E-05	3.31E+03	0.109
Fluoranthene	0.300	5.33	USEPA, 1992	5.24	141523	2.12E-06	5.37E+04	0.114
Fluorene	0.300	4.18	USEPA, 1992	4.11	10480	2.86E-05	3.80E+03	0.109
Indeno(1,2,3-cd)pyrene	0.300	7.66	USEPA, 1992	7.53	27619614	1.09E-08	1.15E+07	0.125
Naphthalene	0.300	3.37	USEPA, 1992	3.31	1676	1.79E-04	5.89E+02	0.105
N-nitrosodiphenylamine	0.300	2.79	USEPA, 1992	2.74	451	6.65E-04	1.55E+02	0.103
Phenanthrene	0.300	4.46	USEPA, 1992	4.38	19752	1.52E-05	7.24E+03	0.110
Pyrene	0.300	5.18	USEPA, 1992	5.09	100781	2.98E-06	3.80E+04	0.113
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.002	5.99	USEPA, 1992	5.89	630388	3.89E-09	2.45E+05	0.001
4,4'-DDE	0.002	5.69	USEPA, 1992	5.59	319674	7.66E-09	1.23E+05	0.001
4,4'-DDT	0.002	6.19	USEPA, 1992	6.09	991306	2.47E-09	3.89E+05	0.001
Aldrin	0.001	6.5	USEPA, 1995	6.39	1999575	6.25E-10	7.94E+05	0.000
alpha-Chlordane [f]	0.001	6.32	USEPA, 1992	6.21	1330447	9.40E-10	5.25E+05	0.000
Aroclor 1248	0.025	6.2	HSDB, 2000	6.09	1013999	2.42E-08	3.98E+05	0.010
Arclor 1254	0.025	6.5	ATSDR, 2000	6.39	1999575	1.23E-08	7.94E+05	0.010
Aroclor 1260	0.025	6.8	ATSDR, 2000	6.68	3943098	6.21E-09	1.58E+06	0.010
beta-BHC	0.001	3.81	USEPA, 1995	3.75	4536	2.76E-07	1.62E+03	0.000
delta-BHC	0.001	4.14	USEPA, 1992	4.07	9573	1.31E-07	3.47E+03	0.000
Endosulfan I	0.001	4.1	USEPA, 1995	4.03	8745	1.43E-07	3.16E+03	0.000
Endosulfan Sulfate	0.002	3.66	USEPA, 1992	3.60	3230	7.58E-07	1.15E+03	0.001
Endrin Aldehyde	0.002	5.6	USEPA, 1992	5.51	260758	9.40E-09	1.00E+05	0.001
gamma-Chlordane [f]	0.001	6.32	USEPA, 1995	6.21	1330447	9.40E-10	5.25E+05	0.000

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TABLE 4-112
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WH
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	10695							577.2
Antimony	22							1.7
Arsenic	114							1.1
Barium	81							4.7
Beryllium	1							0.1
Cadmium	6							5.4
Chromium	346							1.3
Cobalt	12							1.0
Copper	248							3.6
Cyanide	1							0.0
Iron	24718							1490.9
Lead	1516							47.1
Manganese	250							3.1
Mercury	1							0.1
Nickel	24							2.8
Selenium	3							0.3
Silver	0							0.0
Thallium	1							0.0
Vanadium	76							6.0
Zinc	978							129.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.815$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-113
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	62	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	68	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	916	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1474	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3483	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	111157	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	422578	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1882293	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	778605	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	108669	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1650	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	25526	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1890	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4981697	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	302	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	81	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3563	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18178	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	113702	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	57659	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	178800	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	360659	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	239970	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	182893	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	360659	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	711209	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	818	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1727	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1577	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	583	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	47032	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	239970	0.00E+00	5.25E+05	0.000

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TABLE 4-113
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	8500							458.7
Antimony	4							0.3
Arsenic	168							1.4
Barium	119							6.8
Beryllium	1							0.0
Cadmium	8							6.9
Chromium	504							1.3
Cobalt	19							1.5
Copper	306							3.8
Cyanide	4							0.3
Iron	29765							1795.3
Lead	295							12.6
Manganese	1036							8.0
Mercury	1							0.1
Nickel	30							2.6
Selenium	2							0.3
Silver	0							0.0
Thallium	1							0.1
Vanadium	37							3.0
Zinc	1542							150.8

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.147$; Station JY used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-114
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 20
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.108	0.28	USEPA, 1995	0.28	0.5	2.03E-01	4.79E-01	0.097
Acetone	0.342	-0.24	USEPA, 1995	-0.24	0.2	2.09E+00	1.45E-01	0.303
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	19	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	118	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	130	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	1751	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	2817	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	6658	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	1.050	5.61	USEPA, 1992	5.51	91964	1.14E-05	1.02E+05	1.168
Benzo(a)pyrene	0.965	5.98	USEPA, 1992	5.88	212484	4.54E-06	2.40E+05	1.089
Benzo(b)fluoranthene	2.772	6.57	USEPA, 1992	6.46	807786	3.43E-06	9.33E+05	3.202
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	3598126	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	1488354	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	1.450	5.61	USEPA, 1992	5.51	91964	1.58E-05	1.02E+05	1.613
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	207729	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3155	0.00E+00	3.31E+03	0.000
Fluoranthene	2.223	5.33	USEPA, 1992	5.24	48795	4.56E-05	5.37E+04	2.447
Fluorene	0.000	4.18	USEPA, 1992	4.11	3613	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.830	7.66	USEPA, 1992	7.53	9522836	8.72E-08	1.15E+07	1.001
Naphthalene	0.000	3.37	USEPA, 1992	3.31	578	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	155	0.00E+00	1.55E+02	0.000
Phenanthrene	0.770	4.46	USEPA, 1992	4.38	6810	1.13E-04	7.24E+03	0.819
Pyrene	1.950	5.18	USEPA, 1992	5.09	34748	5.61E-05	3.80E+04	2.134
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.024	5.99	USEPA, 1992	5.89	217348	1.10E-07	2.45E+05	0.027
4,4'-DDE	0.025	5.69	USEPA, 1992	5.59	110219	2.27E-07	1.23E+05	0.028
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	341788	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	689424	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.035	6.32	USEPA, 1992	6.21	458719	7.67E-08	5.25E+05	0.040
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	349612	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	689424	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	1359522	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	1564	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	3301	0.00E+00	3.47E+03	0.000
Endosulfan I	0.040	4.1	USEPA, 1995	4.03	3015	1.33E-05	3.16E+03	0.042
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1114	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	89906	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.012	6.32	USEPA, 1995	6.21	458719	2.59E-08	5.25E+05	0.014

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TABLE 4-114
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 20
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	24983							1348.3
Antimony	5							0.4
Arsenic	299							2.1
Barium	107							6.1
Beryllium	2							0.1
Cadmium	16							12.1
Chromium	1587							1.2
Cobalt	38							3.0
Copper	998							5.2
Cyanide	0							0.0
Iron	34267							2066.9
Lead	877							30.3
Manganese	735							6.4
Mercury	2							0.1
Nickel	48							2.3
Selenium	8							0.7
Silver	2							0.1
Thallium	4							0.3
Vanadium	90							7.2
Zinc	2840							184.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al*., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.281$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al*. (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-115
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.013	0.28	USEPA, 1995	0.28	0.8	1.56E-02	4.79E-01	0.007
Acetone	1.207	-0.24	USEPA, 1995	-0.24	0.3	4.71E+00	1.45E-01	0.680
cis-1,2-Dichloroethene	0.073	1.86	USEPA, 1995	1.83	30	2.46E-03	1.82E+01	0.045
Tetrachloroethene	1.131	2.67	USEPA, 1995	2.62	186	6.08E-03	1.17E+02	0.715
Trichloroethene	0.259	2.71	USEPA, 1995	2.66	204	1.27E-03	1.29E+02	0.164
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.239	3.86	USEPA, 1992	3.79	2749	8.71E-05	1.82E+03	0.158
Acenaphthylene	0.239	4.07	USEPA, 1992	4.00	4421	5.41E-05	2.95E+03	0.160
Anthracene	0.250	4.45	USEPA, 1992	4.37	10449	2.40E-05	7.08E+03	0.170
Benzo(a)anthracene	0.335	5.61	USEPA, 1992	5.51	144327	2.32E-06	1.02E+05	0.238
Benzo(a)pyrene	0.318	5.98	USEPA, 1992	5.88	333471	9.52E-07	2.40E+05	0.228
Benzo(b)fluoranthene	0.394	6.57	USEPA, 1992	6.46	1267735	3.11E-07	9.33E+05	0.290
Benzo(g,h,i)perylene	0.298	7.23	USEPA, 1992	7.11	5646880	5.28E-08	4.27E+06	0.225
Benzo(k)fluoranthene	0.422	6.84	USEPA, 1992	6.72	2335816	1.81E-07	1.74E+06	0.314
Carbazole	0.353	na	na	na	na	na	na	na
Chrysene	0.368	5.61	USEPA, 1992	5.51	144327	2.55E-06	1.02E+05	0.261
Dibenz(a,h)anthracene	0.250	5.97	USEPA, 1992	5.87	326008	7.66E-07	2.34E+05	0.180
Dibenzofuran	0.353	4.12	USEPA, 1992	4.05	4951	7.12E-05	3.31E+03	0.236
Fluoranthene	0.475	5.33	USEPA, 1992	5.24	76579	6.20E-06	5.37E+04	0.333
Fluorene	0.244	4.18	USEPA, 1992	4.11	5671	4.30E-05	3.80E+03	0.163
Indeno(1,2,3-cd)pyrene	0.308	7.66	USEPA, 1992	7.53	14945092	2.06E-08	1.15E+07	0.237
Naphthalene	0.243	3.37	USEPA, 1992	3.31	907	2.68E-04	5.89E+02	0.158
N-nitrosodiphenylamine	0.353	2.79	USEPA, 1992	2.74	244	1.45E-03	1.55E+02	0.224
Phenanthrene	0.398	4.46	USEPA, 1992	4.38	10688	3.73E-05	7.24E+03	0.270
Pyrene	0.438	5.18	USEPA, 1992	5.09	54533	8.04E-06	3.80E+04	0.306
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.005	5.99	USEPA, 1992	5.89	341105	1.58E-08	2.45E+05	0.004
4,4'-DDE	0.018	5.69	USEPA, 1992	5.59	172977	1.03E-07	1.23E+05	0.013
4,4'-DDT	0.003	6.19	USEPA, 1992	6.09	536400	5.78E-09	3.89E+05	0.002
Aldrin	0.001	6.5	USEPA, 1995	6.39	1081978	1.07E-09	7.94E+05	0.001
alpha-Chlordane [f]	0.002	6.32	USEPA, 1992	6.21	719911	2.13E-09	5.25E+05	0.001
Aroclor 1248	0.025	6.2	HSDB, 2000	6.09	548679	4.50E-08	3.98E+05	0.018
Arclor 1254	0.023	6.5	ATSDR, 2000	6.39	1081978	2.08E-08	7.94E+05	0.017
Aroclor 1260	0.032	6.8	ATSDR, 2000	6.68	2133627	1.48E-08	1.58E+06	0.024
beta-BHC	0.001	3.81	USEPA, 1995	3.75	2454	4.72E-07	1.62E+03	0.001
delta-BHC	0.001	4.14	USEPA, 1992	4.07	5180	2.29E-07	3.47E+03	0.001
Endosulfan I	0.003	4.1	USEPA, 1995	4.03	4732	5.30E-07	3.16E+03	0.002
Endosulfan Sulfate	0.002	3.66	USEPA, 1992	3.60	1748	1.29E-06	1.15E+03	0.001
Endrin Aldehyde	0.003	5.6	USEPA, 1992	5.51	141097	2.34E-08	1.00E+05	0.002
gamma-Chlordane [f]	0.001	6.32	USEPA, 1995	6.21	719911	1.66E-09	5.25E+05	0.001

TABLE 4-115
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	4711							254.3
Antimony	70							5.5
Arsenic	21							0.3
Barium	41							2.4
Beryllium	0							0.0
Cadmium	1							1.3
Chromium	25							1.5
Cobalt	3							0.2
Copper	23							1.9
Cyanide	1							0.1
Iron	4245							256.0
Lead	6765							157.4
Manganese	71							1.3
Mercury	0							0.1
Nickel	8							3.7
Selenium	4							0.4
Silver	1							0.1
Thallium	0							0.0
Vanadium	31							2.5
Zinc	70							54.6

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.441$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-116
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	4	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	23	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	25	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	343	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	551	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	1303	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	18000	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	41589	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	158108	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	704259	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	291315	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	18000	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	40659	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	617	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	9551	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	707	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1863900	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	113	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	30	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	1333	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	6801	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	42541	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	21573	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	66898	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	134941	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	89785	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	68429	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	134941	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	266099	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	306	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	646	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	590	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	218	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	17597	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	89785	0.00E+00	5.25E+05	0.000

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TABLE 4-116
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	5769							311.3
Antimony	1							0.1
Arsenic	30							0.4
Barium	27							1.5
Beryllium	0							0.0
Cadmium	0							0.8
Chromium	56							1.4
Cobalt	6							0.4
Copper	40							2.2
Cyanide	0							0.0
Iron	10107							609.6
Lead	50							3.0
Manganese	194							2.6
Mercury	0							0.1
Nickel	10							3.5
Selenium	1							0.1
Silver	0							0.0
Thallium	1							0.1
Vanadium	23							1.8
Zinc	130							67.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.055$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-117
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION DA
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	15	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	16	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	218	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	351	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	829	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	11455	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	26466	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	100614	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	448165	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	185382	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	11455	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	25874	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	393	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	6078	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	450	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1186118	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	72	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	19	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	848	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	4328	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	27072	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	13728	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	42571	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	85871	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	57136	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	43546	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	85871	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	169336	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	195	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	411	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	376	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	139	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	11198	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	57136	0.00E+00	5.25E+05	0.000

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TABLE 4-117
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION DA
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	6979							376.6
Antimony	1							0.1
Arsenic	99							1.0
Barium	35							2.0
Beryllium	0							0.0
Cadmium	1							1.7
Chromium	193							1.3
Cobalt	9							0.7
Copper	145							3.2
Cyanide	0							0.0
Iron	16868							1017.4
Lead	134							6.7
Manganese	791							6.7
Mercury	1							0.1
Nickel	11							3.3
Selenium	1							0.2
Silver	0							0.0
Thallium	1							0.1
Vanadium	27							2.1
Zinc	275							85.6

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.035$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-118
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.0	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	10	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	11	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	150	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	241	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	569	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	7855	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	18148	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	68992	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	307313	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	127119	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	7855	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	17742	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	269	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	4168	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	309	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	813338	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	49	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	13	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	582	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	2968	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	18564	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	9414	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	29192	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	58883	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	39179	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	29860	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	58883	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	116116	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	134	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	282	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	258	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	95	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	7679	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	39179	0.00E+00	5.25E+05	0.000

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TABLE 4-118
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	4608							248.7
Antimony	1							0.1
Arsenic	111							1.1
Barium	38							2.1
Beryllium	0							0.0
Cadmium	1							1.3
Chromium	98							1.4
Cobalt	6							0.5
Copper	97							2.8
Cyanide	0							0.0
Iron	17216							1038.4
Lead	85							4.6
Manganese	307							3.5
Mercury	1							0.1
Nickel	8							3.6
Selenium	1							0.1
Silver	1							0.1
Thallium	1							0.1
Vanadium	16							1.3
Zinc	290							87.2

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.024$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-119
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	3	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	18	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	19	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	262	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	421	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	995	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	13745	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	31759	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	120737	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	537798	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	222459	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	13745	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	31048	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	472	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	7293	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	540	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1423342	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	86	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	23	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	1018	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	5194	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	32486	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	16474	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	51086	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	103046	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	68563	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	52255	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	103046	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	203203	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	234	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	493	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	451	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	166	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	13438	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	68563	0.00E+00	5.25E+05	0.000

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TABLE 4-119
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	5604							302.4
Antimony	1							0.1
Arsenic	40							0.5
Barium	51							2.9
Beryllium	0							0.0
Cadmium	1							1.4
Chromium	102							1.4
Cobalt	9							0.7
Copper	91							2.8
Cyanide	0							0.0
Iron	14884							897.8
Lead	160							7.7
Manganese	638							5.8
Mercury	1							0.1
Nickel	12							3.3
Selenium	0							0.1
Silver	1							0.0
Thallium	1							0.1
Vanadium	25							2.0
Zinc	334							91.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.042$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-120
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WSS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	12	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	13	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	175	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	281	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	663	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	9164	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	21173	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	80491	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	358532	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	148306	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	9164	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	20699	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	314	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	4862	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	360	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	948895	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	58	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	15	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	679	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	3462	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	21657	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	10983	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	34057	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	68697	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	45709	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	34837	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	68697	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	135468	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	156	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	329	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	300	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	111	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	8959	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	45709	0.00E+00	5.25E+05	0.000

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TABLE 4-120
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
STATION WSS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	8088							436.5
Antimony	1							0.1
Arsenic	9							0.2
Barium	35							2.0
Beryllium	0							0.0
Cadmium	0							0.4
Chromium	13							1.6
Cobalt	4							0.3
Copper	27							2.0
Cyanide	0							0.0
Iron	9233							556.9
Lead	68							3.8
Manganese	148							2.1
Mercury	0							0.1
Nickel	8							3.7
Selenium	1							0.1
Silver	0							0.0
Thallium	1							0.1
Vanadium	19							1.5
Zinc	54							50.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.028$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-121
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 21
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.6	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.2	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	22	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	139	0.00E+00	1.17E+02	0.000
Trichloroethene	0.019	2.71	USEPA, 1995	2.66	152	1.25E-04	1.29E+02	0.016
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.140	3.86	USEPA, 1992	3.79	2050	6.83E-05	1.82E+03	0.124
Acenaphthylene	0.038	4.07	USEPA, 1992	4.00	3298	1.15E-05	2.95E+03	0.034
Anthracene	0.420	4.45	USEPA, 1992	4.37	7795	5.39E-05	7.08E+03	0.381
Benzo(a)anthracene	0.390	5.61	USEPA, 1992	5.51	107673	3.62E-06	1.02E+05	0.371
Benzo(a)pyrene	0.890	5.98	USEPA, 1992	5.88	248780	3.58E-06	2.40E+05	0.858
Benzo(b)fluoranthene	3.100	6.57	USEPA, 1992	6.46	945771	3.28E-06	9.33E+05	3.059
Benzo(g,h,i)perylene	0.710	7.23	USEPA, 1992	7.11	4212752	1.69E-07	4.27E+06	0.719
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	1742593	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.940	5.61	USEPA, 1992	5.51	107673	8.73E-06	1.02E+05	0.893
Dibenz(a,h)anthracene	0.240	5.97	USEPA, 1992	5.87	243213	9.87E-07	2.34E+05	0.231
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3693	0.00E+00	3.31E+03	0.000
Fluoranthene	2.500	5.33	USEPA, 1992	5.24	57130	4.38E-05	5.37E+04	2.350
Fluorene	0.240	4.18	USEPA, 1992	4.11	4231	5.67E-05	3.80E+03	0.216
Indeno(1,2,3-cd)pyrene	0.620	7.66	USEPA, 1992	7.53	11149513	5.56E-08	1.15E+07	0.638
Naphthalene	2.500	3.37	USEPA, 1992	3.31	676	3.70E-03	5.89E+02	2.176
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	182	0.00E+00	1.55E+02	0.000
Phenanthrene	0.600	4.46	USEPA, 1992	4.38	7974	7.52E-05	7.24E+03	0.545
Pyrene	2.400	5.18	USEPA, 1992	5.09	40683	5.90E-05	3.80E+04	2.243
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.035	5.99	USEPA, 1992	5.89	254475	1.38E-07	2.45E+05	0.034
4,4'-DDE	0.036	5.69	USEPA, 1992	5.59	129046	2.79E-07	1.23E+05	0.034
4,4'-DDT	0.004	6.19	USEPA, 1992	6.09	400171	1.10E-08	3.89E+05	0.004
Aldrin	0.000	6.5	USEPA, 1995	6.39	807190	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.062	6.32	USEPA, 1992	6.21	537076	1.15E-07	5.25E+05	0.061
Aroclor 1248	0.240	6.2	HSDB, 2000	6.09	409332	5.86E-07	3.98E+05	0.233
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	807190	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.420	6.8	ATSDR, 2000	6.68	1591754	2.64E-07	1.58E+06	0.418
beta-BHC	0.000	3.81	USEPA, 1995	3.75	1831	0.00E+00	1.62E+03	0.000
delta-BHC	0.002	4.14	USEPA, 1992	4.07	3865	4.66E-07	3.47E+03	0.002
Endosulfan I	0.068	4.1	USEPA, 1995	4.03	3530	1.93E-05	3.16E+03	0.061
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1304	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.009	5.6	USEPA, 1992	5.51	105263	8.55E-08	1.00E+05	0.009
gamma-Chlordane [f]	0.047	6.32	USEPA, 1995	6.21	537076	8.75E-08	5.25E+05	0.046

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TABLE 4-121
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 21
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	18400							993.0
Antimony	2							0.2
Arsenic	248							1.9
Barium	181							10.3
Beryllium	1							0.1
Cadmium	21							14.5
Chromium	5034							1.1
Cobalt	30							2.4
Copper	601							4.6
Cyanide	0							0.0
Iron	28000							1688.9
Lead	722							25.9
Manganese	268							3.2
Mercury	18							0.1
Nickel	47							2.3
Selenium	4							0.4
Silver	0							0.0
Thallium	0							0.0
Vanadium	77							6.1
Zinc	4856							219.8

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al*., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.329$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al*. (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-122
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION BW
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.5	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.2	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.417	1.86	USEPA, 1995	1.83	19	2.16E-02	1.82E+01	0.392
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	121	0.00E+00	1.17E+02	0.000
Trichloroethene	0.053	2.71	USEPA, 1995	2.66	132	4.00E-04	1.29E+02	0.052
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.013	3.86	USEPA, 1992	3.79	1789	7.27E-06	1.82E+03	0.013
Acenaphthylene	0.019	4.07	USEPA, 1992	4.00	2877	6.60E-06	2.95E+03	0.019
Anthracene	0.069	4.45	USEPA, 1992	4.37	6800	1.01E-05	7.08E+03	0.072
Benzo(a)anthracene	0.560	5.61	USEPA, 1992	5.51	93927	5.96E-06	1.02E+05	0.610
Benzo(a)pyrene	1.000	5.98	USEPA, 1992	5.88	217021	4.61E-06	2.40E+05	1.105
Benzo(b)fluoranthene	1.500	6.57	USEPA, 1992	6.46	825034	1.82E-06	9.33E+05	1.697
Benzo(g,h,i)perylene	0.640	7.23	USEPA, 1992	7.11	3674954	1.74E-07	4.27E+06	0.743
Benzo(k)fluoranthene	0.720	6.84	USEPA, 1992	6.72	1520134	4.74E-07	1.74E+06	0.823
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.850	5.61	USEPA, 1992	5.51	93927	9.05E-06	1.02E+05	0.926
Dibenz(a,h)anthracene	0.320	5.97	USEPA, 1992	5.87	212164	1.51E-06	2.34E+05	0.354
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3222	0.00E+00	3.31E+03	0.000
Fluoranthene	1.200	5.33	USEPA, 1992	5.24	49837	2.41E-05	5.37E+04	1.293
Fluorene	0.047	4.18	USEPA, 1992	4.11	3691	1.27E-05	3.80E+03	0.048
Indeno(1,2,3-cd)pyrene	0.740	7.66	USEPA, 1992	7.53	9726171	7.61E-08	1.15E+07	0.874
Naphthalene	0.026	3.37	USEPA, 1992	3.31	590	4.41E-05	5.89E+02	0.026
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	159	0.00E+00	1.55E+02	0.000
Phenanthrene	0.570	4.46	USEPA, 1992	4.38	6956	8.19E-05	7.24E+03	0.594
Pyrene	1.000	5.18	USEPA, 1992	5.09	35490	2.82E-05	3.80E+04	1.071
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.017	5.99	USEPA, 1992	5.89	221989	7.66E-08	2.45E+05	0.019
4,4'-DDE	0.004	5.69	USEPA, 1992	5.59	112572	3.55E-08	1.23E+05	0.004
4,4'-DDT	0.001	6.19	USEPA, 1992	6.09	349086	3.72E-09	3.89E+05	0.001
Aldrin	0.000	6.5	USEPA, 1995	6.39	704145	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.002	6.32	USEPA, 1992	6.21	468513	5.12E-09	5.25E+05	0.003
Aroclor 1248	0.028	6.2	HSDB, 2000	6.09	357077	7.84E-08	3.98E+05	0.031
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	704145	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.058	6.8	ATSDR, 2000	6.68	1388551	4.18E-08	1.58E+06	0.066
beta-BHC	0.000	3.81	USEPA, 1995	3.75	1597	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	3371	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	3079	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1137	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.002	5.6	USEPA, 1992	5.51	91825	1.96E-08	1.00E+05	0.002
gamma-Chlordane [f]	0.002	6.32	USEPA, 1995	6.21	468513	3.63E-09	5.25E+05	0.002

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TABLE 4-122
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION BW
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	21850							1179.2
Antimony	63							5.0
Arsenic	3036							11.0
Barium	166							9.5
Beryllium	2							0.1
Cadmium	12							9.6
Chromium	2035							1.1
Cobalt	51							4.1
Copper	1520							5.9
Cyanide	0							0.0
Iron	149491							9016.9
Lead	866							30.0
Manganese	1392							9.8
Mercury	16							0.1
Nickel	41							2.4
Selenium	14							1.0
Silver	2							0.2
Thallium	13							1.1
Vanadium	92							7.3
Zinc	2590							178.8

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al*., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.287$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al*. (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-123
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

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TABLE 4-123
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	14742							795.6
Antimony	2							0.2
Arsenic	58							0.7
Barium	59							3.4
Beryllium	1							0.1
Cadmium	9							7.7
Chromium	332							1.3
Cobalt	14							1.1
Copper	749							4.9
Cyanide	0							0.0
Iron	18702							1128.1
Lead	443							17.4
Manganese	688							6.1
Mercury	3							0.1
Nickel	20							2.9
Selenium	5							0.5
Silver	0							0.0
Thallium	3							0.2
Vanadium	79							6.3
Zinc	638							113.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-124
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

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TABLE 4-124
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	5409							291.9
Antimony	2							0.1
Arsenic	41							0.5
Barium	171							9.8
Beryllium	0							0.0
Cadmium	4							3.8
Chromium	144							1.4
Cobalt	5							0.4
Copper	98							2.8
Cyanide	0							0.0
Iron	6898							416.0
Lead	238							10.6
Manganese	72							1.3
Mercury	0							0.1
Nickel	10							3.4
Selenium	2							0.2
Silver	0							0.0
Thallium	1							0.0
Vanadium	32							2.5
Zinc	314							89.5

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

US EPA ARCHIVE DOCUMENT

TABLE 4-125
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	65	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	71	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	954	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1534	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3625	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	115694	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	439827	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1959122	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	810385	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	50073	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	113105	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1718	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	26568	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1967	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5185032	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	315	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	85	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3708	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18920	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	118343	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	60012	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	186098	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	375380	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	249765	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	190358	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	375380	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	740238	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	852	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1797	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1642	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	606	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	48952	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	249765	0.00E+00	5.25E+05	0.000

US EPA ARCHIVE DOCUMENT

TABLE 4-125
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	11284							609.0
Antimony	5							0.4
Arsenic	595							3.5
Barium	67							3.8
Beryllium	1							0.1
Cadmium	13							10.1
Chromium	768							1.2
Cobalt	63							5.0
Copper	376							4.1
Cyanide	0							0.0
Iron	50627							3053.7
Lead	274							11.8
Manganese	464							4.7
Mercury	2							0.1
Nickel	37							2.5
Selenium	5							0.5
Silver	3							0.3
Thallium	1							0.1
Vanadium	62							5.0
Zinc	2099							166.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.153$; average of Stations CB-04 and CB-06 used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

US EPA ARCHIVE DOCUMENT

TABLE 4-126
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	12	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	73	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	80	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	1084	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1744	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	4123	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	56945	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	131574	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	500195	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	2228021	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	921614	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	56945	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	128629	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1953	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	30215	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	2238	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	5896703	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	358	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	96	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	4217	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	21516	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	134586	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	68249	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	211641	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	426903	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	284046	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	216486	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	426903	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	841839	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	968	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	2044	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1867	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	690	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	55671	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	284046	0.00E+00	5.25E+05	0.000

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TABLE 4-126
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	11027							595.1
Antimony	5							0.4
Arsenic	182							1.5
Barium	77							4.4
Beryllium	1							0.1
Cadmium	6							5.3
Chromium	272							1.3
Cobalt	11							0.9
Copper	244							3.6
Cyanide	0							0.0
Iron	39923							2408.1
Lead	276							11.9
Manganese	1380							9.8
Mercury	1							0.1
Nickel	77							2.0
Selenium	4							0.4
Silver	12							0.9
Thallium	5							0.4
Vanadium	68							5.4
Zinc	3066							189.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.174$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-127
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	9	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	56	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	61	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	829	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1333	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3151	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	43527	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	100571	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	382333	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1703027	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	704452	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	43527	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	98320	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1493	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	23095	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1710	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4507250	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	273	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	74	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3223	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	16446	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	102873	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	52168	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	161771	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	326311	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	217116	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	165475	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	326311	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	643475	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	740	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1562	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1427	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	527	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	42553	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	217116	0.00E+00	5.25E+05	0.000

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TABLE 4-127
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	8561							462.0
Antimony	5							0.4
Arsenic	140							1.3
Barium	51							2.9
Beryllium	0							0.0
Cadmium	17							12.6
Chromium	497							1.3
Cobalt	14							1.1
Copper	236							3.6
Cyanide	0							0.0
Iron	16258							980.6
Lead	189							8.8
Manganese	94							1.6
Mercury	0							0.1
Nickel	28							2.6
Selenium	2							0.2
Silver	0							0.0
Thallium	4							0.3
Vanadium	72							5.7
Zinc	2076							166.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.133$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-128
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	14	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	15	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	206	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	331	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	782	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	10800	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	24954	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	94865	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	422556	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	174789	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	10800	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	24395	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	370	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	5730	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	424	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1118340	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	68	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	18	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	800	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	4081	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	25525	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	12944	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	40139	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	80964	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	53871	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	41058	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	80964	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	159659	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	184	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	388	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	354	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	131	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	10558	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	53871	0.00E+00	5.25E+05	0.000

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TABLE 4-128
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	8498							458.6
Antimony	1							0.1
Arsenic	214							1.7
Barium	56							3.2
Beryllium	1							0.1
Cadmium	2							2.5
Chromium	251							1.3
Cobalt	8							0.6
Copper	304							3.8
Cyanide	0							0.0
Iron	24291							1465.2
Lead	224							10.1
Manganese	248							3.0
Mercury	4							0.1
Nickel	14							3.2
Selenium	2							0.3
Silver	2							0.2
Thallium	1							0.1
Vanadium	31							2.4
Zinc	485							103.2

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.033$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-129
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION JY
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	62	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	68	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	916	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1474	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3483	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	111157	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	422578	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1882293	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	778605	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	108669	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1650	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	25526	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1890	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4981697	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	302	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	81	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3563	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18178	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	113702	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	57659	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	178800	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	360659	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	239970	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.144	6.2	HSDB, 2000	6.09	182893	7.85E-07	3.98E+05	0.313
Arclor 1254	1.366	6.5	ATSDR, 2000	6.39	360659	3.79E-06	7.94E+05	3.009
Aroclor 1260	1.472	6.8	ATSDR, 2000	6.68	711209	2.07E-06	1.58E+06	3.279
beta-BHC	0.000	3.81	USEPA, 1995	3.75	818	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1727	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1577	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	583	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	47032	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	239970	0.00E+00	5.25E+05	0.000

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TABLE 4-129
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION JY
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	12295							663.5
Antimony	20							1.5
Arsenic	282							2.1
Barium	182							10.4
Beryllium	1							0.1
Cadmium	15							11.0
Chromium	1170							1.2
Cobalt	17							1.3
Copper	502							4.4
Cyanide	0							0.0
Iron	38229							2305.9
Lead	729							26.1
Manganese	365							4.0
Mercury	2							0.1
Nickel	75							2.0
Selenium	5							0.5
Silver	1							0.1
Thallium	4							0.3
Vanadium	64							5.1
Zinc	2351							173.2

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.147$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-130
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WG
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	1.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.4	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.082	1.86	USEPA, 1995	1.83	46	1.77E-03	1.82E+01	0.032
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	289	0.00E+00	1.17E+02	0.000
Trichloroethene	0.042	2.71	USEPA, 1995	2.66	317	1.33E-04	1.29E+02	0.017
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	4275	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.001	4.07	USEPA, 1992	4.00	6877	1.45E-07	2.95E+03	0.000
Anthracene	0.018	4.45	USEPA, 1992	4.37	16254	1.11E-06	7.08E+03	0.008
Benzo(a)anthracene	0.130	5.61	USEPA, 1992	5.51	224509	5.79E-07	1.02E+05	0.059
Benzo(a)pyrene	0.160	5.98	USEPA, 1992	5.88	518733	3.08E-07	2.40E+05	0.074
Benzo(b)fluoranthene	0.290	6.57	USEPA, 1992	6.46	1972033	1.47E-07	9.33E+05	0.137
Benzo(g,h,i)perylene	0.120	7.23	USEPA, 1992	7.11	8784036	1.37E-08	4.27E+06	0.058
Benzo(k)fluoranthene	0.200	6.84	USEPA, 1992	6.72	3633491	5.50E-08	1.74E+06	0.096
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.230	5.61	USEPA, 1992	5.51	224509	1.02E-06	1.02E+05	0.105
Dibenz(a,h)anthracene	0.046	5.97	USEPA, 1992	5.87	507124	9.07E-08	2.34E+05	0.021
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	7701	0.00E+00	3.31E+03	0.000
Fluoranthene	0.410	5.33	USEPA, 1992	5.24	119123	3.44E-06	5.37E+04	0.185
Fluorene	0.014	4.18	USEPA, 1992	4.11	8822	1.59E-06	3.80E+03	0.006
Indeno(1,2,3-cd)pyrene	0.140	7.66	USEPA, 1992	7.53	23247921	6.02E-09	1.15E+07	0.069
Naphthalene	0.012	3.37	USEPA, 1992	3.31	1410	8.51E-06	5.89E+02	0.005
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	379	0.00E+00	1.55E+02	0.000
Phenanthrene	0.160	4.46	USEPA, 1992	4.38	16626	9.62E-06	7.24E+03	0.070
Pyrene	0.340	5.18	USEPA, 1992	5.09	84829	4.01E-06	3.80E+04	0.152
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.009	5.99	USEPA, 1992	5.89	530608	1.70E-08	2.45E+05	0.004
4,4'-DDE	0.003	5.69	USEPA, 1992	5.59	269075	1.19E-08	1.23E+05	0.001
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	834400	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	1683078	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.001	6.32	USEPA, 1992	6.21	1119861	8.75E-10	5.25E+05	0.000
Aroclor 1248	0.035	6.2	HSDB, 2000	6.09	853501	4.10E-08	3.98E+05	0.016
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	1683078	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.011	6.8	ATSDR, 2000	6.68	3318976	3.31E-09	1.58E+06	0.005
beta-BHC	0.000	3.81	USEPA, 1995	3.75	3818	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	8058	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	7360	5.98E-08	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	2719	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	219485	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.001	6.32	USEPA, 1995	6.21	1119861	5.27E-10	5.25E+05	0.000

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TABLE 4-130
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WG
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	16081							867.9
Antimony	9							0.7
Arsenic	263							2.0
Barium	94							5.4
Beryllium	1							0.1
Cadmium	6							5.7
Chromium	930							1.2
Cobalt	21							1.7
Copper	627							4.6
Cyanide	1							0.1
Iron	28490							1718.4
Lead	521							19.9
Manganese	1015							7.9
Mercury	3							0.1
Nickel	35							2.5
Selenium	5							0.4
Silver	1							0.1
Thallium	0							0.0
Vanadium	65							5.2
Zinc	1086							134.4

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.686$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-131
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WH
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	1.5	0.00E+00	4.79E-01	0.000
Acetone	2.700	-0.24	USEPA, 1995	-0.24	0.5	5.70E+00	1.45E-01	0.824
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	55	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	344	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	376	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	5079	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	8170	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	19310	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	266727	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	616279	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	2342867	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	10435845	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.660	6.84	USEPA, 1992	6.72	4316757	1.53E-07	1.74E+06	0.266
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	266727	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	602487	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	9150	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	141523	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	10480	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	27619614	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	1676	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	451	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	19752	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	100781	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	630388	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	319674	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	991306	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	1999575	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	1330447	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	1013999	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	1999575	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	3943098	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	4536	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	9573	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	8745	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	3230	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	260758	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	1330447	0.00E+00	5.25E+05	0.000

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TABLE 4-131
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WH
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	13414							723.9
Antimony	27							2.1
Arsenic	424							2.7
Barium	94							5.4
Beryllium	1							0.1
Cadmium	10							8.5
Chromium	837							1.2
Cobalt	21							1.7
Copper	572							4.5
Cyanide	1							0.1
Iron	58501							3528.6
Lead	1851							55.3
Manganese	442							4.5
Mercury	1							0.1
Nickel	42							2.4
Selenium	3							0.4
Silver	0							0.0
Thallium	1							0.1
Vanadium	97							7.7
Zinc	2139							167.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.815$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-132
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.3	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.1	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	10	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	62	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	68	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	916	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	1474	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	3483	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	111157	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	422578	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	1882293	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	778605	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	48109	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	108669	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	1650	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	25526	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	1890	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	4981697	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	302	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	81	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	3563	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	18178	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	113702	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	57659	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	178800	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	360659	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	239970	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	182893	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	360659	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	711209	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	818	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	1727	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1577	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	583	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	47032	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	239970	0.00E+00	5.25E+05	0.000

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TABLE 4-132
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	10523							567.9
Antimony	5							0.4
Arsenic	226							1.8
Barium	140							8.0
Beryllium	1							0.1
Cadmium	11							8.7
Chromium	728							1.2
Cobalt	25							2.0
Copper	414							4.2
Cyanide	6							0.5
Iron	37159							2241.3
Lead	367							15.0
Manganese	1215							9.0
Mercury	1							0.1
Nickel	36							2.5
Selenium	3							0.3
Silver	0							0.0
Thallium	1							0.1
Vanadium	45							3.6
Zinc	2044							165.5

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.147$; Station JY used to represent this station

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-133
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 20
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.108	0.28	USEPA, 1995	0.28	0.5	2.03E-01	4.79E-01	0.097
Acetone	0.590	-0.24	USEPA, 1995	-0.24	0.2	3.61E+00	1.45E-01	0.522
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	19	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	118	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	130	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	1751	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	2817	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	6658	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	1.100	5.61	USEPA, 1992	5.51	91964	1.20E-05	1.02E+05	1.224
Benzo(a)pyrene	1.200	5.98	USEPA, 1992	5.88	212484	5.65E-06	2.40E+05	1.355
Benzo(b)fluoranthene	3.700	6.57	USEPA, 1992	6.46	807786	4.58E-06	9.33E+05	4.275
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	3598126	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	1488354	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	1.500	5.61	USEPA, 1992	5.51	91964	1.63E-05	1.02E+05	1.669
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	207729	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	3155	0.00E+00	3.31E+03	0.000
Fluoranthene	3.000	5.33	USEPA, 1992	5.24	48795	6.15E-05	5.37E+04	3.302
Fluorene	0.000	4.18	USEPA, 1992	4.11	3613	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.830	7.66	USEPA, 1992	7.53	9522836	8.72E-08	1.15E+07	1.001
Naphthalene	0.000	3.37	USEPA, 1992	3.31	578	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	155	0.00E+00	1.55E+02	0.000
Phenanthrene	0.890	4.46	USEPA, 1992	4.38	6810	1.31E-04	7.24E+03	0.947
Pyrene	2.500	5.18	USEPA, 1992	5.09	34748	7.19E-05	3.80E+04	2.735
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.032	5.99	USEPA, 1992	5.89	217348	1.47E-07	2.45E+05	0.036
4,4'-DDE	0.032	5.69	USEPA, 1992	5.59	110219	2.90E-07	1.23E+05	0.036
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	341788	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	689424	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.049	6.32	USEPA, 1992	6.21	458719	1.07E-07	5.25E+05	0.056
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	349612	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	689424	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	1359522	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	1564	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	3301	0.00E+00	3.47E+03	0.000
Endosulfan I	0.042	4.1	USEPA, 1995	4.03	3015	1.39E-05	3.16E+03	0.044
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1114	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	89906	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.012	6.32	USEPA, 1995	6.21	458719	2.59E-08	5.25E+05	0.014

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TABLE 4-133
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 20
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	29700							1602.9
Antimony	5							0.4
Arsenic	321							2.3
Barium	151							8.6
Beryllium	2							0.2
Cadmium	19							13.4
Chromium	1860							1.1
Cobalt	46							3.7
Copper	1075							5.4
Cyanide	0							0.0
Iron	43800							2641.9
Lead	1200							39.0
Manganese	902							7.3
Mercury	3							0.1
Nickel	58							2.2
Selenium	11							0.9
Silver	2							0.1
Thallium	4							0.3
Vanadium	115							9.1
Zinc	3470							196.8

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al*., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.281$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al*. (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-134
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.8	0.00E+00	4.79E-01	0.000
Acetone	2.400	-0.24	USEPA, 1995	-0.24	0.3	9.36E+00	1.45E-01	1.353
cis-1,2-Dichloroethene	0.073	1.86	USEPA, 1995	1.83	30	2.46E-03	1.82E+01	0.045
Tetrachloroethene	2.762	2.67	USEPA, 1995	2.62	186	1.49E-02	1.17E+02	1.746
Trichloroethene	0.698	2.71	USEPA, 1995	2.66	204	3.43E-03	1.29E+02	0.442
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.013	3.86	USEPA, 1992	3.79	2749	4.73E-06	1.82E+03	0.009
Acenaphthylene	0.012	4.07	USEPA, 1992	4.00	4421	2.71E-06	2.95E+03	0.008
Anthracene	0.046	4.45	USEPA, 1992	4.37	10449	4.40E-06	7.08E+03	0.031
Benzo(a)anthracene	0.300	5.61	USEPA, 1992	5.51	144327	2.08E-06	1.02E+05	0.213
Benzo(a)pyrene	0.200	5.98	USEPA, 1992	5.88	333471	6.00E-07	2.40E+05	0.144
Benzo(b)fluoranthene	0.440	6.57	USEPA, 1992	6.46	1267735	3.47E-07	9.33E+05	0.324
Benzo(g,h,i)perylene	0.190	7.23	USEPA, 1992	7.11	5646880	3.36E-08	4.27E+06	0.144
Benzo(k)fluoranthene	0.540	6.84	USEPA, 1992	6.72	2335816	2.31E-07	1.74E+06	0.402
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.400	5.61	USEPA, 1992	5.51	144327	2.77E-06	1.02E+05	0.284
Dibenz(a,h)anthracene	0.044	5.97	USEPA, 1992	5.87	326008	1.35E-07	2.34E+05	0.032
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	4951	0.00E+00	3.31E+03	0.000
Fluoranthene	0.797	5.33	USEPA, 1992	5.24	76579	1.04E-05	5.37E+04	0.559
Fluorene	0.026	4.18	USEPA, 1992	4.11	5671	4.58E-06	3.80E+03	0.017
Indeno(1,2,3-cd)pyrene	0.220	7.66	USEPA, 1992	7.53	14945092	1.47E-08	1.15E+07	0.169
Naphthalene	0.025	3.37	USEPA, 1992	3.31	907	2.76E-05	5.89E+02	0.016
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	244	0.00E+00	1.55E+02	0.000
Phenanthrene	0.490	4.46	USEPA, 1992	4.38	10688	4.58E-05	7.24E+03	0.332
Pyrene	0.610	5.18	USEPA, 1992	5.09	54533	1.12E-05	3.80E+04	0.425
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.010	5.99	USEPA, 1992	5.89	341105	2.81E-08	2.45E+05	0.007
4,4'-DDE	0.031	5.69	USEPA, 1992	5.59	172977	1.79E-07	1.23E+05	0.022
4,4'-DDT	0.003	6.19	USEPA, 1992	6.09	536400	5.03E-09	3.89E+05	0.002
Aldrin	0.000	6.5	USEPA, 1995	6.39	1081978	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.001	6.32	USEPA, 1992	6.21	719911	1.67E-09	5.25E+05	0.001
Aroclor 1248	0.008	6.2	HSDB, 2000	6.09	548679	1.48E-08	3.98E+05	0.006
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	1081978	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.029	6.8	ATSDR, 2000	6.68	2133627	1.36E-08	1.58E+06	0.022
beta-BHC	0.000	3.81	USEPA, 1995	3.75	2454	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	5180	3.09E-08	3.47E+03	0.000
Endosulfan I	0.004	4.1	USEPA, 1995	4.03	4732	9.07E-07	3.16E+03	0.003
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	1748	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.003	5.6	USEPA, 1992	5.51	141097	2.34E-08	1.00E+05	0.002
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	719911	2.64E-10	5.25E+05	0.000

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TABLE 4-134
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	10258							553.6
Antimony	329							26.1
Arsenic	77							0.8
Barium	49							2.8
Beryllium	1							0.1
Cadmium	1							1.8
Chromium	65							1.4
Cobalt	4							0.3
Copper	29							2.1
Cyanide	0							0.0
Iron	9142							551.4
Lead	32501							558.6
Manganese	116							1.8
Mercury	0							0.1
Nickel	11							3.3
Selenium	6							0.5
Silver	3							0.2
Thallium	1							0.0
Vanadium	41							3.2
Zinc	96							60.6

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.441$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-135
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	4	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	23	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	25	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	343	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	551	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	1303	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	18000	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	41589	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	158108	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	704259	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	291315	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	18000	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	40659	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	617	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	9551	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	707	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1863900	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	113	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	30	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	1333	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	6801	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	42541	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	21573	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	66898	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	134941	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	89785	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	68429	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	134941	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	266099	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	306	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	646	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	590	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	218	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	17597	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	89785	0.00E+00	5.25E+05	0.000

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TABLE 4-135
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	6210							335.1
Antimony	1							0.1
Arsenic	60							0.7
Barium	31							1.8
Beryllium	0							0.0
Cadmium	1							1.0
Chromium	138							1.4
Cobalt	7							0.5
Copper	50							2.4
Cyanide	0							0.0
Iron	11469							691.8
Lead	62							3.6
Manganese	226							2.8
Mercury	0							0.1
Nickel	10							3.4
Selenium	1							0.1
Silver	0							0.0
Thallium	2							0.1
Vanadium	26							2.1
Zinc	166							72.6

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.055$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-136
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION DA
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	15	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	16	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	218	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	351	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	829	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	11455	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	26466	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	100614	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	448165	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	185382	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	11455	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	25874	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	393	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	6078	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	450	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1186118	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	72	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	19	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	848	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	4328	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	27072	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	13728	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	42571	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	85871	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	57136	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	43546	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	85871	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	169336	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	195	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	411	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	376	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	139	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	11198	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	57136	0.00E+00	5.25E+05	0.000

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TABLE 4-136
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION DA
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	9392							506.9
Antimony	1							0.1
Arsenic	195							1.6
Barium	66							3.8
Beryllium	1							0.0
Cadmium	5							4.4
Chromium	391							1.3
Cobalt	26							2.0
Copper	249							3.6
Cyanide	0							0.0
Iron	33507							2021.0
Lead	214							9.7
Manganese	2850							16.1
Mercury	3							0.1
Nickel	17							3.0
Selenium	2							0.2
Silver	0							0.0
Thallium	3							0.3
Vanadium	38							3.0
Zinc	593							110.2

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.035$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-137
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.0	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	10	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	11	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	150	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	241	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	569	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	7855	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	18148	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	68992	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	307313	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	127119	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	7855	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	17742	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	269	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	4168	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	309	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	813338	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	49	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	13	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	582	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	2968	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	18564	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	9414	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	29192	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	58883	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	39179	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	29860	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	58883	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	116116	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	134	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	282	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	258	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	95	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	7679	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	39179	0.00E+00	5.25E+05	0.000

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TABLE 4-137
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	6701							361.7
Antimony	1							0.1
Arsenic	201							1.6
Barium	60							3.4
Beryllium	0							0.0
Cadmium	2							2.4
Chromium	172							1.3
Cobalt	10							0.8
Copper	171							3.3
Cyanide	0							0.0
Iron	28575							1723.6
Lead	144							7.1
Manganese	830							6.9
Mercury	2							0.1
Nickel	13							3.2
Selenium	2							0.2
Silver	2							0.2
Thallium	1							0.1
Vanadium	25							2.0
Zinc	525							106.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.024$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-138
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	3	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	18	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	19	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	262	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	421	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	995	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	13745	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	31759	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	120737	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	537798	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	222459	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	13745	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	31048	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	472	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	7293	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	540	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	1423342	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	86	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	23	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	1018	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	5194	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	32486	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	16474	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	51086	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	103046	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	68563	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	52255	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	103046	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	203203	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	234	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	493	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	451	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	166	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	13438	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	68563	0.00E+00	5.25E+05	0.000

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TABLE 4-138
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	6302							340.1
Antimony	1							0.1
Arsenic	46							0.6
Barium	61							3.5
Beryllium	0							0.0
Cadmium	1							1.7
Chromium	120							1.4
Cobalt	10							0.8
Copper	108							2.9
Cyanide	0							0.0
Iron	17015							1026.3
Lead	192							8.9
Manganese	816							6.8
Mercury	1							0.1
Nickel	14							3.1
Selenium	1							0.1
Silver	1							0.1
Thallium	1							0.1
Vanadium	29							2.3
Zinc	393							96.3

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.042$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-139
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WSS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.000	0.28	USEPA, 1995	0.28	0.1	0.00E+00	4.79E-01	0.000
Acetone	0.000	-0.24	USEPA, 1995	-0.24	0.0	0.00E+00	1.45E-01	0.000
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	2	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.000	2.67	USEPA, 1995	2.62	12	0.00E+00	1.17E+02	0.000
Trichloroethene	0.000	2.71	USEPA, 1995	2.66	13	0.00E+00	1.29E+02	0.000
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.000	3.86	USEPA, 1992	3.79	175	0.00E+00	1.82E+03	0.000
Acenaphthylene	0.000	4.07	USEPA, 1992	4.00	281	0.00E+00	2.95E+03	0.000
Anthracene	0.000	4.45	USEPA, 1992	4.37	663	0.00E+00	7.08E+03	0.000
Benzo(a)anthracene	0.000	5.61	USEPA, 1992	5.51	9164	0.00E+00	1.02E+05	0.000
Benzo(a)pyrene	0.000	5.98	USEPA, 1992	5.88	21173	0.00E+00	2.40E+05	0.000
Benzo(b)fluoranthene	0.000	6.57	USEPA, 1992	6.46	80491	0.00E+00	9.33E+05	0.000
Benzo(g,h,i)perylene	0.000	7.23	USEPA, 1992	7.11	358532	0.00E+00	4.27E+06	0.000
Benzo(k)fluoranthene	0.000	6.84	USEPA, 1992	6.72	148306	0.00E+00	1.74E+06	0.000
Carbazole	0.000	na	na	na	na	na	na	na
Chrysene	0.000	5.61	USEPA, 1992	5.51	9164	0.00E+00	1.02E+05	0.000
Dibenz(a,h)anthracene	0.000	5.97	USEPA, 1992	5.87	20699	0.00E+00	2.34E+05	0.000
Dibenzofuran	0.000	4.12	USEPA, 1992	4.05	314	0.00E+00	3.31E+03	0.000
Fluoranthene	0.000	5.33	USEPA, 1992	5.24	4862	0.00E+00	5.37E+04	0.000
Fluorene	0.000	4.18	USEPA, 1992	4.11	360	0.00E+00	3.80E+03	0.000
Indeno(1,2,3-cd)pyrene	0.000	7.66	USEPA, 1992	7.53	948895	0.00E+00	1.15E+07	0.000
Naphthalene	0.000	3.37	USEPA, 1992	3.31	58	0.00E+00	5.89E+02	0.000
N-nitrosodiphenylamine	0.000	2.79	USEPA, 1992	2.74	15	0.00E+00	1.55E+02	0.000
Phenanthrene	0.000	4.46	USEPA, 1992	4.38	679	0.00E+00	7.24E+03	0.000
Pyrene	0.000	5.18	USEPA, 1992	5.09	3462	0.00E+00	3.80E+04	0.000
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.000	5.99	USEPA, 1992	5.89	21657	0.00E+00	2.45E+05	0.000
4,4'-DDE	0.000	5.69	USEPA, 1992	5.59	10983	0.00E+00	1.23E+05	0.000
4,4'-DDT	0.000	6.19	USEPA, 1992	6.09	34057	0.00E+00	3.89E+05	0.000
Aldrin	0.000	6.5	USEPA, 1995	6.39	68697	0.00E+00	7.94E+05	0.000
alpha-Chlordane [f]	0.000	6.32	USEPA, 1992	6.21	45709	0.00E+00	5.25E+05	0.000
Aroclor 1248	0.000	6.2	HSDB, 2000	6.09	34837	0.00E+00	3.98E+05	0.000
Arclor 1254	0.000	6.5	ATSDR, 2000	6.39	68697	0.00E+00	7.94E+05	0.000
Aroclor 1260	0.000	6.8	ATSDR, 2000	6.68	135468	0.00E+00	1.58E+06	0.000
beta-BHC	0.000	3.81	USEPA, 1995	3.75	156	0.00E+00	1.62E+03	0.000
delta-BHC	0.000	4.14	USEPA, 1992	4.07	329	0.00E+00	3.47E+03	0.000
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	300	0.00E+00	3.16E+03	0.000
Endosulfan Sulfate	0.000	3.66	USEPA, 1992	3.60	111	0.00E+00	1.15E+03	0.000
Endrin Aldehyde	0.000	5.6	USEPA, 1992	5.51	8959	0.00E+00	1.00E+05	0.000
gamma-Chlordane [f]	0.000	6.32	USEPA, 1995	6.21	45709	0.00E+00	5.25E+05	0.000

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TABLE 4-139
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
STATION WSS
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	9201							496.6
Antimony	1							0.1
Arsenic	10							0.2
Barium	40							2.3
Beryllium	0							0.0
Cadmium	0							0.6
Chromium	18							1.6
Cobalt	5							0.4
Copper	34							2.1
Cyanide	0							0.0
Iron	10800							651.4
Lead	82							4.5
Manganese	189							2.5
Mercury	0							0.1
Nickel	9							3.5
Selenium	1							0.1
Silver	0							0.0
Thallium	1							0.1
Vanadium	24							1.9
Zinc	72							55.2

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.028$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-140
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
WETLAND REFERENCE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.009	0.28	USEPA, 1995	0.28	0.2	3.53E-02	4.79E-01	0.017
Acetone	0.034	-0.24	USEPA, 1995	-0.24	0.1	4.55E-01	1.45E-01	0.066
cis-1,2-Dichloroethene	0.012	1.86	USEPA, 1995	1.83	9	1.32E-03	1.82E+01	0.024
Tetrachloroethene	0.013	2.67	USEPA, 1995	2.62	54	2.38E-04	1.17E+02	0.028
Trichloroethene	0.009	2.71	USEPA, 1995	2.66	60	1.53E-04	1.29E+02	0.020
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.195	3.86	USEPA, 1992	3.79	804	2.42E-04	1.82E+03	0.441
Acenaphthylene	0.243	4.07	USEPA, 1992	4.00	1293	1.88E-04	2.95E+03	0.553
Anthracene	0.440	4.45	USEPA, 1992	4.37	3056	1.44E-04	7.08E+03	1.020
Benzo(a)anthracene	1.360	5.61	USEPA, 1992	5.51	42218	3.22E-05	1.02E+05	3.296
Benzo(a)pyrene	1.233	5.98	USEPA, 1992	5.88	97546	1.26E-05	2.40E+05	3.033
Benzo(b)fluoranthene	2.188	6.57	USEPA, 1992	6.46	370834	5.90E-06	9.33E+05	5.507
Benzo(g,h,i)perylene	0.376	7.23	USEPA, 1992	7.11	1651809	2.28E-07	4.27E+06	0.971
Benzo(k)fluoranthene	2.023	6.84	USEPA, 1992	6.72	683266	2.96E-06	1.74E+06	5.144
Carbazole	0.323	na	na	na	na	na	na	na
Chrysene	1.610	5.61	USEPA, 1992	5.51	42218	3.81E-05	1.02E+05	3.902
Dibenz(a,h)anthracene	0.234	5.97	USEPA, 1992	5.87	95363	2.46E-06	2.34E+05	0.576
Dibenzofuran	0.357	4.12	USEPA, 1992	4.05	1448	2.47E-04	3.31E+03	0.816
Fluoranthene	3.293	5.33	USEPA, 1992	5.24	22401	1.47E-04	5.37E+04	7.895
Fluorene	0.568	4.18	USEPA, 1992	4.11	1659	3.43E-04	3.80E+03	1.303
Indeno(1,2,3-cd)pyrene	0.518	7.66	USEPA, 1992	7.53	4371694	1.18E-07	1.15E+07	1.359
Naphthalene	0.221	3.37	USEPA, 1992	3.31	265	8.35E-04	5.89E+02	0.491
N-nitrosodiphenylamine	0.367	2.79	USEPA, 1992	2.74	71	5.14E-03	1.55E+02	0.797
Phenanthrene	2.408	4.46	USEPA, 1992	4.38	3126	7.70E-04	7.24E+03	5.580
Pyrene	2.577	5.18	USEPA, 1992	5.09	15952	1.62E-04	3.80E+04	6.141
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.095	5.99	USEPA, 1992	5.89	99779	9.49E-07	2.45E+05	0.233
4,4'-DDE	0.013	5.69	USEPA, 1992	5.59	50599	2.49E-07	1.23E+05	0.031
4,4'-DDT	0.034	6.19	USEPA, 1992	6.09	156906	2.18E-07	3.89E+05	0.085
Aldrin	0.001	6.5	USEPA, 1995	6.39	316497	2.42E-09	7.94E+05	0.002
alpha-Chlordane [f]	0.002	6.32	USEPA, 1992	6.21	210586	8.68E-09	5.25E+05	0.005
Aroclor 1248	0.064	6.2	HSDB, 2000	6.09	160498	3.98E-07	3.98E+05	0.158
Arclor 1254	0.016	6.5	ATSDR, 2000	6.39	316497	4.98E-08	7.94E+05	0.040
Aroclor 1260	0.049	6.8	ATSDR, 2000	6.68	624122	7.82E-08	1.58E+06	0.124
beta-BHC	0.001	3.81	USEPA, 1995	3.75	718	1.11E-06	1.62E+03	0.002
delta-BHC	0.001	4.14	USEPA, 1992	4.07	1515	6.12E-07	3.47E+03	0.002
Endosulfan I	0.001	4.1	USEPA, 1995	4.03	1384	5.64E-07	3.16E+03	0.002
Endosulfan Sulfate	0.003	3.66	USEPA, 1992	3.60	511	4.95E-06	1.15E+03	0.006
Endrin Aldehyde	0.002	5.6	USEPA, 1992	5.51	41273	5.73E-08	1.00E+05	0.006
gamma-Chlordane [f]	0.002	6.32	USEPA, 1995	6.21	210586	1.02E-08	5.25E+05	0.005

TABLE 4-140
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
AVERAGE EXPOSURE CASE
WETLAND REFERENCE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	8195							442.3
Antimony	1							0.1
Arsenic	21							0.3
Barium	48							2.7
Beryllium	1							0.1
Cadmium	1							1.6
Chromium	129							1.4
Cobalt	8							0.7
Copper	57							2.5
Cyanide	0							0.0
Iron	15518							936.0
Lead	332							13.8
Manganese	133							2.0
Mercury	0							0.1
Nickel	19							2.9
Selenium	1							0.1
Silver	1							0.1
Thallium	0							0.0
Vanadium	56							4.4
Zinc	155							70.9

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.129$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - average COPC concentration in sediment (mg/kg); averages obtained by averaging samples collected within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-141
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
WETLAND REFERENCE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s	$\log_{10}(K_{ow})$	Source	$\log_{10}(K_{oc})$ [a]	K_d [b]	C_w [c]	K_{bw} [d]	C_v [e] (mg/kg)
Volatile Organics (mg/kg)								
2-Butanone	0.013	0.28	USEPA, 1995	0.28	0.2	5.42E-02	4.79E-01	0.026
Acetone	0.071	-0.24	USEPA, 1995	-0.24	0.1	9.48E-01	1.45E-01	0.137
cis-1,2-Dichloroethene	0.000	1.86	USEPA, 1995	1.83	9	0.00E+00	1.82E+01	0.000
Tetrachloroethene	0.033	2.67	USEPA, 1995	2.62	54	5.99E-04	1.17E+02	0.070
Trichloroethene	0.012	2.71	USEPA, 1995	2.66	60	2.00E-04	1.29E+02	0.026
Semivolatile Organics (mg/kg)								
2-Methylnaphthalene	0.289	3.86	USEPA, 1992	3.79	804	3.60E-04	1.82E+03	0.654
Acenaphthylene	0.690	4.07	USEPA, 1992	4.00	1293	5.34E-04	2.95E+03	1.576
Anthracene	1.656	4.45	USEPA, 1992	4.37	3056	5.42E-04	7.08E+03	3.836
Benzo(a)anthracene	5.406	5.61	USEPA, 1992	5.51	42218	1.28E-04	1.02E+05	13.103
Benzo(a)pyrene	4.904	5.98	USEPA, 1992	5.88	97546	5.03E-05	2.40E+05	12.060
Benzo(b)fluoranthene	9.363	6.57	USEPA, 1992	6.46	370834	2.52E-05	9.33E+05	23.562
Benzo(g,h,i)perylene	0.627	7.23	USEPA, 1992	7.11	1651809	3.79E-07	4.27E+06	1.618
Benzo(k)fluoranthene	9.464	6.84	USEPA, 1992	6.72	683266	1.39E-05	1.74E+06	24.070
Carbazole	0.990	na	na	na	na	na	na	na
Chrysene	6.684	5.61	USEPA, 1992	5.51	42218	1.58E-04	1.02E+05	16.200
Dibenz(a,h)anthracene	0.350	5.97	USEPA, 1992	5.87	95363	3.67E-06	2.34E+05	0.859
Dibenzofuran	1.000	4.12	USEPA, 1992	4.05	1448	6.91E-04	3.31E+03	2.286
Fluoranthene	15.000	5.33	USEPA, 1992	5.24	22401	6.70E-04	5.37E+04	35.961
Fluorene	1.369	4.18	USEPA, 1992	4.11	1659	8.26E-04	3.80E+03	3.139
Indeno(1,2,3-cd)pyrene	1.405	7.66	USEPA, 1992	7.53	4371694	3.21E-07	1.15E+07	3.690
Naphthalene	0.359	3.37	USEPA, 1992	3.31	265	1.35E-03	5.89E+02	0.797
N-nitrosodiphenylamine	2.035	2.79	USEPA, 1992	2.74	71	2.85E-02	1.55E+02	4.416
Phenanthrene	12.000	4.46	USEPA, 1992	4.38	3126	3.84E-03	7.24E+03	27.806
Pyrene	10.736	5.18	USEPA, 1992	5.09	15952	6.73E-04	3.80E+04	25.587
Pesticides and PCBs (mg/kg)								
4,4'-DDD	0.390	5.99	USEPA, 1992	5.89	99779	3.91E-06	2.45E+05	0.959
4,4'-DDE	0.023	5.69	USEPA, 1992	5.59	50599	4.62E-07	1.23E+05	0.057
4,4'-DDT	0.130	6.19	USEPA, 1992	6.09	156906	8.29E-07	3.89E+05	0.322
Aldrin	0.001	6.5	USEPA, 1995	6.39	316497	3.63E-09	7.94E+05	0.003
alpha-Chlordane [f]	0.004	6.32	USEPA, 1992	6.21	210586	1.99E-08	5.25E+05	0.010
Aroclor 1248	0.290	6.2	HSDB, 2000	6.09	160498	1.81E-06	3.98E+05	0.719
Arclor 1254	0.023	6.5	ATSDR, 2000	6.39	316497	7.18E-08	7.94E+05	0.057
Aroclor 1260	0.200	6.8	ATSDR, 2000	6.68	624122	3.20E-07	1.58E+06	0.508
beta-BHC	0.000	3.81	USEPA, 1995	3.75	718	5.57E-07	1.62E+03	0.001
delta-BHC	0.001	4.14	USEPA, 1992	4.07	1515	7.58E-07	3.47E+03	0.003
Endosulfan I	0.000	4.1	USEPA, 1995	4.03	1384	1.59E-07	3.16E+03	0.001
Endosulfan Sulfate	0.005	3.66	USEPA, 1992	3.60	511	9.59E-06	1.15E+03	0.011
Endrin Aldehyde	0.005	5.6	USEPA, 1992	5.51	41273	1.11E-07	1.00E+05	0.011
gamma-Chlordane [f]	0.004	6.32	USEPA, 1995	6.21	210586	1.72E-08	5.25E+05	0.009

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TABLE 4-141
ESTIMATION OF COPC CONCENTRATIONS IN EARTHWORM TISSUE
MAXIMUM EXPOSURE CASE
WETLAND REFERENCE
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	C_s							C_v [g] (mg/kg)
Inorganics (mg/kg)								
Aluminum	12242							660.7
Antimony	1							0.1
Arsenic	33							0.4
Barium	72							4.1
Beryllium	1							0.1
Cadmium	2							2.4
Chromium	410							1.3
Cobalt	13							1.0
Copper	93							2.8
Cyanide	0							0.0
Iron	22525							1358.7
Lead	524							20.0
Manganese	210							2.7
Mercury	1							0.1
Nickel	27							2.7
Selenium	2							0.2
Silver	3							0.2
Thallium	1							0.1
Vanadium	99							7.9
Zinc	232							81.0

Notes:

[a] $\log_{10}(K_{oc}) = 0.983 \log_{10}(K_{ow}) + 0.00028$ (equations in footnotes a-e from Sample *et al* ., 1997)

[b] $K_d = f_{oc} \times K_{oc;}$ average $f_{oc} = 0.129$

[c] $C_w = C_s/K_d$

[d] $\log_{10} K_{bw} = \log_{10} K_{ow} - 0.6$

[e] $C_v = K_{bw} \times C_w$

[f] $\log_{10}(K_{ow})$ Value is for Chlordane

[g] Values for As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Se, and Zn based on regression analyses on literature derived soil-biota uptake data provided in Sample *et al* . (1998). Concentration factors for Al, Ba, and Fe taken from Beyer and Stafford (1993). An uptake factor of 0.5 was conservatively assumed for Sb, Be, Co, Ag, Tl, and V.

C_s - (5% UCL or Maxumum COPC concentration in sediment (mg/kg) within a station
COPC - Chemical of Potential Concern
K_{ow} - Octanol/Water Partitioning Coefficient (Unitless)
K_{oc} - Water/Soil Organic Carbon Partitioning Coefficient (L/kg)
f_{oc} - Fraction of Organic Carbon in Soil (Unitless)
K_d - Soil/Water Partitioning Coefficient (L/kg Sediment)
C_w - Water Concentration (mg/L)
K_{bw} - Biota/Water Partitioning Coefficient (L/kg Organism)
C_v - Concentration in Worms (mg/kg - body weight wet)
na - one or more parameters not available to calculated C_v

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TABLE 4-142
TOXICITY REFERENCE VALUES FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Volatile Organics										
2-Butanone	rat	0.35	oral gavage (intermediate)	13 wk	neurological	121	LOAEL	12.1	ATSDR, 1992a	9.7
Acetone	rat	0.35	oral in water (intermediate)	13 wk	reproductive	1700	NOAEL	1700	ATSDR, 1994a	1367.1
cis-1,2-Dichloroethene	rat	0.35	oral in water (intermediate)	90 d	systemic	3114	NOAEL	3114	ATSDR, 1994b	2504.1
Tetrachloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	14	NOAEL	14	Sample et al., 1996	6.1
Trichloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	70	LOAEL	7	Sample et al., 1996	3.0
Semivolatile Organics										
2-Methylnaphthalene (1-methylnaphthalene)	mouse	0.03	oral in food (chronic)	81 wk	systemic	143.7	NOAEL	143.7	ATSDR, 1995a	62.5
Acenaphthylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0
Anthracene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	1000	NOAEL	1000	ATSDR, 1995b	435.1
Benzo(a)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Benzo(a)pyrene	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Benzo(b)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Benzo(g,h,i)perylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0
Benzo(k)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Carbazole [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0
Chrysene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Dibenz(a,h)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Dibenzofuran [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0
Fluoranthene	mouse	0.03	oral gavage (intermediate)	13 wk	hepatic	125	NOAEL	125	ATSDR, 1995b	54.4
Fluorene	mouse	0.03	oral gavage (intermediate)	13 wk	hematological	125	NOAEL	125	ATSDR, 1995b	54.4
Indeno(1,2,3-cd)pyrene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	0.6
Naphthalene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	140	NOAEL	140	ATSDR, 1995a	60.9
N-nitrosodiphenylamine	rat	0.35	oral in food (intermediate)	8-11 wk	systemic	150	NOAEL	150	ATSDR, 1993	120.6
Phenanthrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0
Pyrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	58.0

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TABLE 4-142
TOXICITY REFERENCE VALUES FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Pesticides/PCBs										
4,4'-DDD	rat	0.35	oral in food (chronic)	78 wk	cancer	85	LOAEL	9	ATSDR, 1994c	6.8
4,4'-DDE	mouse	0.03	oral in food (chronic)	78 wk	cancer	19	LOAEL	1.9	ATSDR, 1994c	0.8
4,4'-DDT	rat	0.35	oral in diet (chronic)	2 year	reproductive	0.80	NOAEL	0.80	Sample et al., 1996	0.6
Aldrin	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.2
alpha-Chlordane	mouse	0.03	oral in diet (chronic)	6 gen	reproductive	4.58	NOAEL	4.58	Sample et al., 1996	2.0
Aroclor-1248	mouse	0.03	oral in food (intermediate)	5 wk	immunological	13.0	LOAEL	1.3	ATSDR, 2000	0.6
Arochlor-1254	mink	1.00	oral in diet (chronic)	4.5 months	reproductive	0.1	NOAEL	0.14	Sample et al., 1996	0.1
Aroclor-1260	rat	0.35	oral in food (chronic)	24 months	cancer	3.45	LOAEL	0.35	ATSDR, 2000	0.3
beta-BHC	rat	0.35	oral in diet (subchronic)	13 wk	systemic; hematological	4	NOAEL	4	Sample et al., 1996	3.2
delta-BHC (mixed isomers)	rat	0.35	oral in diet (chronic)	4 gen	reproductive	1.6	NOAEL	1.6	Sample et al., 1996	1.3
Endosulfan I	rat	0.35	oral intubation (subchronic)	30 d	reproductive	1.50	NOAEL	1.5	Sample et al., 1996	1.2
Endosulfan Sulfate (Endosulfan)	rat	0.35	oral (subchronic)	30 d	reproductive	1.50	NOAEL	1.5	Sample et al., 1996	1.2
Endrin aldehyde (Endrin)	mouse	0.03	oral in diet (chronic)	120 d	reproductive	0.92	LOAEL	0.09	Sample et al., 1996	0.04
gamma-Chlordane (Chlordane)	mouse	0.03	oral in diet (chronic)	6 gen	reproductive	4.60	NOAEL	4.58	Sample et al., 1996	2.0
Metals										
Aluminum (Aluminum chloride)	rat	0.35	oral in water (chronic)	116 d	reproductive	52	NOAEL	52	ATSDR, 1999	41.8
Antimony (Antimony potassium tartrate)	mouse	0.03	oral in water (chronic)	lifetime, >1 year	lifespan	1.25	LOAEL	0.125	Sample et al., 1996	0.05
Arsenic (Arsenite)	mouse	0.03	oral in water (chronic)	3 gen	reproductive	1.26	LOAEL	0.126	Sample et al., 1996	0.05
Barium (Barium chloride)	rat	0.435	oral in water (chronic)	16 months	growth	5.1	NOAEL	5.1	Sample et al., 1996	4.3
Beryllium (Beryllium sulfate)	rat	0.35	oral in water (chronic)	lifetime, >1 year	longevity	0.66	NOAEL	0.66	Sample et al., 1996	0.5
Cadmium (Cadmium chloride)	rat	0.30	oral gavage (chronic)	6 weeks	reproductive	1.0	NOAEL	1.0	Sample et al., 1996	0.8
Chromium (Chromium Chloride)	rat	0.35	oral in food (subchronic)	20 weeks	systemic	9	NOAEL	9	ATSDR, 2000	7
Cobalt	rat	0.35	oral in food (intermediate)	69 d	reproductive	5	NOAEL	5	ATSDR, 1992d	4.0
Copper (Copper sulfate)	mink	1.0	oral in diet (chronic)	357 d	reproductive	11.7	NOAEL	11.7	Sample et al., 1996	12.2
Cyanide (Potassim cyanide)	rat	0.3	oral in diet (chronic)	gestation, lactation	reproductive	68.7	NOAEL	68.7	Sample et al., 1996	51.9
Iron (Ferrous sulfate)	rat	0.35	oral (acute)	1 time	mortality	319	LD50	3.19	USEPA, 1984	2.6
Lead (Lead acetate)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	8.0	NOAEL	8.0	Sample et al., 1996	6.4
Manganese (Manganese oxide)	rat	0.35	oral in diet (chronic)	224 d	reproductive	88	NOAEL	88	Sample et al., 1996	70.8
Mercury (Methyl mercury chloride)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.032	NOAEL	0.032	Sample et al., 1996	0.03
Nickel (Nickel sulfate hexahydrate)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	40	NOAEL	40	Sample et al., 1996	32.2
Selenium (Selanate)	rat	0.35	oral in water (chronic)	1 year	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.2
Silver	rat	0.35	oral in water (acute)	2 wk	mortality	181.2	NOAEL	181.2	ATSDR, 1990	145.7
Thallium (Thallium sulfate)	rat	0.37	oral in water (subchronic)	60 d	reproductive	0.74	LOAEL	0.074	Sample et al., 1996	0.1
Vanadium (Sodium metavanadate)	rat	0.26	oral intubation (chronic)	60 d +	reproductive	2.1	LOAEL	0.21	Sample et al., 1996	0.2
Zinc (Zinc oxide)	rat	0.35	oral in diet (chronic)	d 1-16 of gestation	reproductive	160	NOAEL	160	Sample et al., 1996	128.7

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TABLE 4-142
TOXICITY REFERENCE VALUES FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]

Notes:

d - day

wk - week

gen - generations

UF - Uncertainty Factor

COPC - Chemical of Potential Concern

RTV - Reference Toxicity Value

NOAEL - No Observed Adverse Effect Level

LOAEL - Lowest Observed Adverse Effect Level

1 COPC or COPC and analyte/compound used in toxicological testing

2 Body weight for mouse and rat based on USEPA (1985b *cited in* Sample *et al*., 1996), other body weights are actual body weights of animals used in test

3 Lowest carcinogenic LOAEL from PAH toxicological data summarized in ATSDR, 1995b; test used benzo(a)pyrene. USEPA has classified benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, chrysene, and indeno(1,2,3-cd)pyrene as carcinogens (ATSDR, 1995b).

4 Lowest non-carcinogenic NOAEL from PAH toxicological data summarized in ATSDR (1995b); test used benzo(a)pyrene. USEPA has indicated that acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, phenanthrene and pyrene are not classifiable as carcinogens (ATSDR, 1995b). Carbazole and dibenzofuran were included in this group for the development of HQs.

5 RTVs for studies in which dose was administered five times per week were multiplied for a factor of 0.7.

6 LOAELs were divided by a UF of 10 to obtain NOAELs. The LD_{50} for iron was divided by 100 to obtain a NOAEL (10 for the LD_{50} to LOAEL conversion and 10 for the LOAEL to NOAEL conversion)

7 Documents cited are review documents (i.e., secondary sources). Citations for primary sources may be obtained from these documents.

8 Test NOAELs were adjusted for wildlife species body weight using the following equation: $NOAEL_{wildlife} = NOAEL_{test} * (BW_{test}/BW_{wildlife})^{0.25}$ (Sample *et al.*, 1996)

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TABLE 4-143
TOXICITY REFERENCE VALUES FOR HERON

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Volatile Organics										
2-Butanone	rat	0.35	oral gavage (intermediate)	13 wk	neurological	121	LOAEL	12.1	ATSDR, 1992a	12.1
Acetone	rat	0.35	oral in water (intermediate)	13 wk	reproductive	1700	NOAEL	1700	ATSDR, 1994a	1700.0
cis-1,2-Dichloroethene	rat	0.35	oral in water (intermediate)	90 d	systemic	3114	NOAEL	3114	ATSDR, 1994b	3114.0
Tetrachloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	14	NOAEL	14	Sample et al., 1996	14.0
Trichloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	70	LOAEL	7	Sample et al., 1996	7.0
Semivolatile Organics										
2-Methylnaphthalene (1-methylnaphthalene)	mouse	0.03	oral in food (chronic)	81 wk	systemic	143.7	NOAEL	143.7	ATSDR, 1995a	143.7
Acenaphthylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Anthracene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	1000	NOAEL	1000	ATSDR, 1995b	1000.0
Benzo(a)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(a)pyrene	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(b)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(g,h,i)perylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Benzo(k)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Carbazole [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Chrysene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Dibenz(a,h)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Dibenzofuran [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Fluoranthene	mouse	0.03	oral gavage (intermediate)	13 wk	hepatic	125	NOAEL	125	ATSDR, 1995b	125.0
Fluorene	mouse	0.03	oral gavage (intermediate)	13 wk	hematological	125	NOAEL	125	ATSDR, 1995b	125.0
Indeno(1,2,3-cd)pyrene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Naphthalene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	140	NOAEL	140	ATSDR, 1995a	140.0
N-nitrosodiphenylamine	rat	0.35	oral in food (intermediate)	8-11 wk	systemic	150	NOAEL	150	ATSDR, 1993	150.0
Phenanthrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Pyrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3

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TABLE 4-143
TOXICITY REFERENCE VALUES FOR HERON

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Pesticides/PCBs										
4,4'-DDD	rat	0.35	oral in food (chronic)	78 wk	cancer	85	LOAEL	9	ATSDR, 1994c	8.50
4,4'-DDE	mouse	0.03	oral in food (chronic)	78 wk	cancer	19	LOAEL	1.9	ATSDR, 1994c	1.90
4,4'-DDT	brown pelican	3.50	oral in diet (chronic)	5 yr	reproductive	0.03	LOAEL	0.003	Sample et al., 1996	0.003
Aldrin	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.20
alpha-Chlordane (Chlordane)	red-winged blackbird	0.06	oral in diet (chronic)	84 d	mortality	2.14	NOAEL	2.14	Sample et al., 1996	2.14
Aroclor-1248	chicken	1.94			reproductive	1.0	NOAEL	1.0	NRC, 2001	0.98
Aroclor-1254	mallard	1.00			reproductive	1.5	NOAEL	1.5	NRC, 2001	1.50
Aroclor-1260	rat	0.35	oral in food (chronic)	24 months	cancer	3.45	LOAEL	0.35	ATSDR, 1995c	0.35
beta-BHC	rat	0.35	oral in diet (subchronic)	13 wk	systemic; hematological	4	NOAEL	4	Sample et al., 1996	4.00
delta-BHC (mixed isomers)	rat	0.35	oral in diet (chronic)	4 gen	reproductive	1.6	NOAEL	1.6	Sample et al., 1996	1.60
Endosulfan I	gray partridge	0.40	oral in diet (chronic)	4 wk	reproductive	10	NOAEL	10	Sample et al., 1996	10
Endosulfan sulfate (Endosulfan)	gray partridge	0.40	oral in diet (chronic)	4 wk	reproductive	10	NOAEL	10	Sample et al., 1996	10
Endrin aldehyde (Endrin)	mallard	1.15	oral in diet (chronic)	>200 d	reproductive	0.30	NOAEL	0.30	Sample et al., 1996	0.30
gamma-Chlordane (Chlordane)	red-winged blackbird	0.06	oral in diet (chronic)	84 d	mortality	2.14	NOAEL	2.14	Sample et al., 1996	2.14
Metals										
Aluminum (Aluminum sulfate)	ringed dove	0.16	oral in diet (chronic)	4 months	reproductive	109.7	NOAEL	109.7	Sample et al., 1996	109.7
Antimony	mouse	0.03	oral in water (chronic)	lifetime, >1 year	lifespan	1.25	LOAEL	0.125	Sample et al., 1996	0.13
Arsenic (Sodium arsenite)	mallard	1.00	oral in diet (chronic)	128 d	mortality	5.14	NOAEL	5.14	Sample et al., 1996	5.1
Barium (Barium hydroxide)	1-day old chickens	0.121	oral in diet (subchronic)	4 wk	mortality	208	NOAEL	208	Sample et al., 1996	208.0
Beryllium (Beryllium sulfate)	rat	0.35	oral in water (chronic)	lifetime, >1 year	longevity	0.66	NOAEL	0.66	Sample et al., 1996	0.66
Cadmium (Cadmium chloride)	mallard	1.15	oral in diet (chronic)	90 d	reproductive	1.5	NOAEL	1.5	Sample et al., 1996	1.5
Chromium (3+ as Chromic potassium sulfate)	black duck	1.25	oral in diet (chronic)	10 months	reproductive	1.0	NOAEL	1.0	Sample et al., 1996	1.0
Cobalt	rat	0.3	oral in food (intermediate)	69 d	reproductive	5	NOAEL	5	ATSDR, 1992d	5.0
Copper (Copper oxide)	1-day old chickens	0.5	oral in diet (chronic)	10 wk	mortality	47.0	NOAEL	47.0	Sample et al., 1996	47.0
Cyanide (Potassim cyanide)	rat	0.3	oral in diet (chronic)	gestation, lactation	reproductive	68.7	NOAEL	68.7	Sample et al., 1996	68.7
Iron (Ferrous sulfate)	rat	0.35	oral (acute)	1 time	mortality	319	LD50	3.19	USEPA, 1984	3.2
Lead (Lead acetate)	Japanese quail	0.15	oral in diet (chronic)	12 wk	reproductive	1.1	NOAEL	1.1	Sample et al., 1996	1.1
Manganese (Manganese oxide)	1-day old J. quail	0.072	oral in diet (chronic)	75 d	growth	977	NOAEL	977	Sample et al., 1996	977.0
Mercury (Methyl mercury dicyandiamide)	mallard	1	oral in diet (chronic)	3 gen	reproductive	0.064	LOAEL	0.0064	Sample et al., 1996	0.006
Nickel (Nickel sulfate)	mallard	0.782	oral in diet (chronic)	90 d	mortality	77.4	NOAEL	77.4	Sample et al., 1996	77.4
Selenium (Selanomethionine)	mallard	1	oral in diet (chronic)	100 d	reproductive	0.4	NOAEL	0.4	Sample et al., 1996	0.4
Silver	rat	0.35	oral in water (acute)	2 wk	mortality	181.2	NOAEL	181.2	ATSDR, 1990	181.2
Thallium (Thallium sulfate)	rat	0.37	oral in water (subchronic)	60 d	reproductive	0.74	LOAEL	0.074	Sample et al., 1996	0.074
Vanadium (Vanadyl sulfate)	mallard	1.17	oral in diet (chronic)	12 wk	mortality	11.4	NOAEL	11.4	Sample et al., 1996	11.4
Zinc (Zinc sulfate)	white leg-horn	1.94	oral in diet (chronic)	44 wk	reproductive	15	NOAEL	15	Sample et al., 1996	14.5

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TABLE 4-143
TOXICITY REFERENCE VALUES FOR HERON

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]

Notes:

d - day

wk - week

gen - generations

UF - Uncertainty Factor

COPC - Chemical of Potential Concern

RTV - Reference Toxicity Value

NOAEL - No Observed Adverse Effect Level

LOAEL - Lowest Observed Adverse Effect Level

1 COPC or COPC and analyte/compound used in toxicological testing

2 Body weight for mouse and rat based on USEPA (1985b *cited in* Sample *et al*., 1996), other body weights are actual body weights of animals used in test

3 Lowest carcinogenic LOAEL from PAH toxicological data summarized in ATSDR, 1995b; test used benzo(a)pyrene. USEPA has classified benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, chrysene, and indeno(1,2,3-cd)pyrene as carcinogens (ATSDR, 1995b).

4 Lowest non-carcinogenic NOAEL from PAH toxicological data summarized in ATSDR (1995b); test used benzo(a)pyrene. USEPA has indicated that acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, phenanthrene and pyrene are not classifiable as carcinogens (ATSDR, 1995b). Carbazole and dibenzofuran were included in this group for the development of HQs.

5 RTVs for studies in which dose was administered five times per week were multiplied for a factor of 0.7.

6 LOAELs were divided by a UF of 10 to obtain NOAELs. The LD_{50} for iron was divided by 100 to obtain a NOAEL (10 for the LD_{50} to LOAEL conversion and 10 for the LOAEL to NOAEL conversion)

7 Documents cited are review documents (i.e., secondary sources). Citations for primary sources may be obtained from these documents.

8 Test NOAELs from test species were not adjusted for body weight of heron (Sample *et al*., 1996).

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TABLE 4-144
TOXICITY REFERENCE VALUES FOR MALLARD

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Volatile Organics										
2-Butanone	rat	0.35	oral gavage (intermediate)	13 wk	neurological	121	LOAEL	12.1	ATSDR, 1992a	12.1
Acetone	rat	0.35	oral in water (intermediate)	13 wk	reproductive	1700	NOAEL	1700	ATSDR, 1994a	1700.0
cis-1,2-Dichloroethene	rat	0.35	oral in water (intermediate)	90 d	systemic	3114	NOAEL	3114	ATSDR, 1994b	3114.0
Tetrachloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	14	NOAEL	14	Sample et al., 1996	14.0
Trichloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	70	LOAEL	7	Sample et al., 1996	7.0
Semivolatile Organics										
2-Methylnaphthalene (1-methylnaphthalene)	mouse	0.03	oral in food (chronic)	81 wk	systemic	143.7	NOAEL	143.7	ATSDR, 1995a	143.7
Acenaphthylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Anthracene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	1000	NOAEL	1000	ATSDR, 1995b	1000.0
Benzo(a)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(a)pyrene	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(b)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Benzo(g,h,i)perylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Benzo(k)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Carbazole [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Chrysene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Dibenz(a,h)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Dibenzofuran [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Fluoranthene	mouse	0.03	oral gavage (intermediate)	13 wk	hepatic	125	NOAEL	125	ATSDR, 1995b	125.0
Fluorene	mouse	0.03	oral gavage (intermediate)	13 wk	hematological	125	NOAEL	125	ATSDR, 1995b	125.0
Indeno(1,2,3-cd)pyrene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.3
Naphthalene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	140	NOAEL	140	ATSDR, 1995a	140.0
N-nitrosodiphenylamine	rat	0.35	oral in food (intermediate)	8-11 wk	systemic	150	NOAEL	150	ATSDR, 1993	150.0
Phenanthrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3
Pyrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	133.3

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TABLE 4-144
TOXICITY REFERENCE VALUES FOR MALLARD

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]
Pesticides/PCBs										
4,4'-DDD	rat	0.35	oral in food (chronic)	78 wk	cancer	85	LOAEL	9	ATSDR, 1994c	8.5
4,4'-DDE	mouse	0.03	oral in food (chronic)	78 wk	cancer	19	LOAEL	1.9	ATSDR, 1994c	1.9
4,4'-DDT	brown pelican	3.50	oral in diet (chronic)	5 yr	reproductive	0.03	LOAEL	0.003	Sample et al., 1996	0.0
Aldrin	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.2
alpha-Chlordane (Chlordane)	red-winged blackbird	0.06	oral in diet (chronic)	84 d	mortality	2.14	NOAEL	2.14	Sample et al., 1996	2.1
Aroclor-1248	chicken	1.94	oral in diet (chronic)	9 wk	reproductive	1.0	NOAEL	1.0	NRC, 2001	1.0
Aroclor-1254	mallard	1.00	oral in diet(chronic)	68 d	reproductive	1.5	NOAEL	1.5	NRC, 2001	1.5
Aroclor-1260	rat	0.35	oral in food (chronic)	24 months	cancer	3.45	LOAEL	0.35	ATSDR, 1995c	0.3
beta-BHC	rat	0.35	oral in diet (subchronic)	13 wk	systemic; hematological	4	NOAEL	4	Sample et al., 1996	4.0
delta-BHC (mixed isomers)	rat	0.35	oral in diet (chronic)	4 gen	reproductive	1.6	NOAEL	1.6	Sample et al., 1996	1.6
Endosulfan I	gray partridge	0.40	oral in diet (chronic)	4 wk	reproductive	10	NOAEL	10	Sample et al., 1996	10.0
Endosulfan sulfate (Endosulfan)	gray partridge	0.40	oral in diet (chronic)	4 wk	reproductive	10	NOAEL	10	Sample et al., 1996	10.0
Endrin aldehyde (Endrin)	mallard	1.15	oral in diet (chronic)	>200 d	reproductive	0.30	NOAEL	0.30	Sample et al., 1996	0.3
gamma-Chlordane (Chlordane)	red-winged blackbird	0.06	oral in diet (chronic)	84 d	mortality	2.14	NOAEL	2.14	Sample et al., 1996	2.1
Metals										
Aluminum (Aluminum sulfate)	ringed dove	0.16	oral in diet (chronic)	4 months	reproductive	109.7	NOAEL	109.7	Sample et al., 1996	109.7
Antimony	mouse	0.03	oral in water (chronic)	lifetime, >1 year	lifespan	1.25	LOAEL	0.125	Sample et al., 1996	0.1
Arsenic (Sodium arsenite)	mallard	1.00	oral in diet (chronic)	128 d	mortality	5.14	NOAEL	5.14	Sample et al., 1996	5.1
Barium (Barium hydroxide)	1-day old chickens	0.121	oral in diet (subchronic)	4 wk	mortality	208	NOAEL	208	Sample et al., 1996	208.0
Beryllium (Beryllium sulfate)	rat	0.35	oral in water (chronic)	lifetime, >1 year	longevity	0.66	NOAEL	0.66	Sample et al., 1996	0.7
Cadmium (Cadmium chloride)	mallard	1.15	oral in diet (chronic)	90 d	reproductive	1.5	NOAEL	1.5	Sample et al., 1996	1.5
Chromium (3+ as Chromic potassium sulfate)	black duck	1.25	oral in diet (chronic)	10 months	reproductive	1.0	NOAEL	1.0	Sample et al., 1996	1.0
Cobalt	rat	0.3	oral in food (intermediate)	69 d	reproductive	5	NOAEL	5	ATSDR, 1992d	5.0
Copper (Copper oxide)	1-day old chickens	0.5	oral in diet (chronic)	10 wk	mortality	47.0	NOAEL	47.0	Sample et al., 1996	47.0
Cyanide (Potassim cyanide)	rat	0.3	oral in diet (chronic)	gestation, lactation	reproductive	68.7	NOAEL	68.7	Sample et al., 1996	68.7
Iron (Ferrous sulfate)	rat	0.35	oral (acute)	1 time	mortality	319	LD50	3.19	USEPA, 1984	3.2
Lead (Lead acetate)	Japanese quail	0.15	oral in diet (chronic)	12 wk	reproductive	1.1	NOAEL	1.1	Sample et al., 1996	1.1
Manganese (Manganese oxide)	1-day old J. quail	0.072	oral in diet (chronic)	75 d	growth	977	NOAEL	977	Sample et al., 1996	977.0
Mercury (Methyl mercury dicyandiamide)	mallard	1	oral in diet (chronic)	3 gen	reproductive	0.064	LOAEL	0.0064	Sample et al., 1996	0.0
Nickel (Nickel sulfate)	mallard	0.782	oral in diet (chronic)	90 d	mortality	77.4	NOAEL	77.4	Sample et al., 1996	77.4
Selenium (Selanomethionine)	mallard	1	oral in diet (chronic)	100 d	reproductive	0.4	NOAEL	0.4	Sample et al., 1996	0.4
Silver	rat	0.35	oral in water (acute)	2 wk	mortality	181.2	NOAEL	181.2	ATSDR, 1990	181.2
Thallium (Thallium sulfate)	rat	0.37	oral in water (subchronic)	60 d	reproductive	0.74	LOAEL	0.074	Sample et al., 1996	0.1
Vanadium (Vanadyl sulfate)	mallard	1.17	oral in diet (chronic)	12 wk	mortality	11.4	NOAEL	11.4	Sample et al., 1996	11.4
Zinc (Zinc sulfate)	white leg-horn	1.94	oral in diet (chronic)	44 wk	reproductive	15	NOAEL	15	Sample et al., 1996	14.5

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TABLE 4-144
TOXICITY REFERENCE VALUES FOR MALLARD

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test TRV mg/kg - d [5]	Test TRV Type	NOAEL [6]	Source [7]	Wildlife TRV (mg/kg-d) [8]

Notes:

d - day

wk - week

gen - generations

UF - Uncertainty Factor

COPC - Chemical of Potential Concern

RTV - Reference Toxicity Value

NOAEL - No Observed Adverse Effect Level

LOAEL - Lowest Observed Adverse Effect Level

1 COPC or COPC and analyte/compound used in toxicological testing

2 Body weight for mouse and rat based on USEPA (1985b *cited in* Sample *et al*., 1996), other body weights are actual body weights of animals used in test

3 Lowest carcinogenic LOAEL from PAH toxicological data summarized in ATSDR, 1995b; test used benzo(a)pyrene. USEPA has classified benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, chrysene, and indeno(1,2,3-cd)pyrene as carcinogens (ATSDR, 1995b).

4 Lowest non-carcinogenic NOAEL from PAH toxicological data summarized in ATSDR (1995b); test used benzo(a)pyrene. USEPA has indicated that acenaphthylene, anthracene, benzo(g,h,i) perylene, fluoranthene, fluorene, phenanthrene and pyrene are not classifiable as carcinogens (ATSDR, 1995b). Carbazole and dibenzofuran were included in this group for the development of HQs.

5 RTVs for studies in which dose was administered five times per week were multiplied for a factor of 0.7.

6 LOAELs were divided by a UF of 10 to obtain NOAELs. The LD_{50} for iron was divided by 100 to obtain a NOAEL (10 for the LD_{50} to LOAEL conversion and 10 for the LOAEL to NOAEL conversion)

7 Documents cited are review documents (i.e., secondary sources). Citations for primary sources may be obtained from these documents.

8 Test NOAELs from test species were not adjusted for body weight of mallard (Sample *et al*., 1996).

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TABLE 4-145
TOXICITY REFERENCE VALUES FOR SHREW

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test RTV mg/kg - d [5]	Test RTV Type	NOAEL [6]	Source [7]	Wildlife RTV (mg/kg-d) [8]
Volatile Organics										
2-Butanone	rat	0.35	oral gavage (intermediate)	13 wk	neurological	121	LOAEL	12.1	ATSDR, 1992a	26.6
Acetone	rat	0.35	oral in water (intermediate)	13 wk	reproductive	1700	NOAEL	1700	ATSDR, 1994a	3736.3
cis-1,2-Dichloroethene	rat	0.35	oral in water (intermediate)	90 d	systemic	3114	NOAEL	3114	ATSDR, 1994b	6844.0
Tetrachloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	14	NOAEL	14	Sample et al., 1996	16.6
Trichloroethene	mouse	0.03	oral gavage (subchronic)	6 wk	hepatic	70	LOAEL	7	Sample et al., 1996	8.3
Semivolatile Organics										
2-Methylnaphthalene (1-methylnaphthalene)	mouse	0.03	oral in food (chronic)	81 wk	systemic	143.7	NOAEL	143.7	ATSDR, 1995a	170.9
Acenaphthylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5
Anthracene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	1000	NOAEL	1000	ATSDR, 1995b	1189.2
Benzo(a)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Benzo(a)pyrene	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Benzo(b)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Benzo(g,h,i)perylene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5
Benzo(k)fluoranthene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Carbazole [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5
Chrysene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Dibenz(a,h)anthracene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Dibenzofuran [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5
Fluoranthene	mouse	0.03	oral gavage (intermediate)	13 wk	hepatic	125	NOAEL	125	ATSDR, 1995b	148.7
Fluorene	mouse	0.03	oral gavage (intermediate)	13 wk	hematological	125	NOAEL	125	ATSDR, 1995b	148.7
Indeno(1,2,3-cd)pyrene [3]	mouse	0.03	oral in food (intermediate)	30-197 days	cancer	1.30	NOAEL	1.30	ATSDR, 1995b	1.5
Naphthalene	mouse	0.03	oral gavage (intermediate)	13 wk	reproductive	140	NOAEL	140	ATSDR, 1995a	166.5
N-nitrosodiphenylamine	rat	0.35	oral in food (intermediate)	8-11 wk	systemic	150	NOAEL	150	ATSDR, 1993	329.7
Phenanthrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5
Pyrene [4]	mouse	0.03	oral in food (intermediate)	19-29 days	reproductive	133.3	NOAEL	133.3	ATSDR, 1995b	158.5

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TABLE 4-145
TOXICITY REFERENCE VALUES FOR SHREW

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test RTV mg/kg - d [5]	Test RTV Type	NOAEL [6]	Source [7]	Wildlife RTV (mg/kg-d) [8]
Pesticides/PCBs										
4,4'-DDD	rat	0.35	oral in food (chronic)	78 wk	cancer	85	LOAEL	9	ATSDR, 1994c	18.7
4,4'-DDE	mouse	0.03	oral in food (chronic)	78 wk	cancer	19	LOAEL	1.9	ATSDR, 1994c	2.3
4,4'-DDT	rat	0.35	oral in diet (chronic)	2 year	reproductive	0.80	NOAEL	0.80	Sample et al., 1996	1.8
Aldrin	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.4
alpha-Chlordane	mouse	0.03	oral in diet (chronic)	6 gen	reproductive	4.58	NOAEL	4.58	Sample et al., 1996	5.4
Aroclor-1248	mouse	0.03	oral in food (intermediate)	5 wk	immunological	13.0	LOAEL	1.3	ATSDR, 1995c	1.5
Aroclor 1254	mouse	0.03	oral in diet (chronic)	12 months	reproductive	0.7	LOAEL	0.1	Sample et al., 1996	0.1
Aroclor-1260	rat	0.35	oral in food (chronic)	24 months	cancer	3.45	LOAEL	0.35	ATSDR, 1995c	0.8
beta-BHC	rat	0.35	oral in diet (subchronic)	13 wk	systemic; hematological	4	NOAEL	4	Sample et al., 1996	8.8
delta-BHC (mixed isomers)	rat	0.35	oral in diet (chronic)	4 gen	reproductive	1.6	NOAEL	1.6	Sample et al., 1996	3.5
Endosulfan I	rat	0.35	oral intubation (subchronic)	30 d	reproductive	1.50	NOAEL	1.5	Sample et al., 1996	3.3
Endosulfan Sulfate (Endosulfan)	rat	0.35	oral (subchronic)	30 d	reproductive	1.50	NOAEL	1.5	Sample et al., 1996	3.3
Endrin aldehyde (Endrin)	mouse	0.03	oral in diet (chronic)	120 d	reproductive	0.92	LOAEL	0.09	Sample et al., 1996	0.1
gamma-Chlordane (Chlordane)	mouse	0.03	oral in diet (chronic)	6 gen	reproductive	4.60	NOAEL	4.58	Sample et al., 1996	5.4
Metals										
Aluminum (Aluminum chloride)	mouse	0.03	oral in water (chronic)	390 d	reproductive	49	NOAEL	49	ATSDR, 1999	58.3
Antimony (Antimony potassium tartrate)	mouse	0.03	oral in water (chronic)	lifetime, >1 year	lifespan	1.25	LOAEL	0.125	Sample et al., 1996	0.1
Arsenic (Arsenite)	mouse	0.03	oral in water (chronic)	3 gen	reproductive	1.26	LOAEL	0.126	Sample et al., 1996	0.1
Barium (Barium chloride)	rat	0.435	oral in water (chronic)	16 months	growth	5.1	NOAEL	5.1	Sample et al., 1996	11.8
Beryllium (Beryllium sulfate)	rat	0.35	oral in water (chronic)	lifetime, >1 year	longevity	0.66	NOAEL	0.66	Sample et al., 1996	1.5
Cadmium (Cadmium chloride)	rat	0.30	oral gavage (chronic)	6 weeks	reproductive	1.0	NOAEL	1.0	Sample et al., 1996	2.1
Chromium (Chromium Chloride)	rat	0.35	oral in food (subchronic)	20 weeks	systemic	9	NOAEL	9	ATSDR, 2000	19.8
Cobalt	rat	0.35	oral in food (intermediate)	69 d	reproductive	5	NOAEL	5	ATSDR, 1992c	11.0
Copper (Copper sulfate)	mink	1.0	oral in diet (chronic)	357 d	reproductive	11.7	NOAEL	11.7	Sample et al., 1996	33.4
Cyanide (Potassim cyanide)	rat	0.3	oral in diet (chronic)	gestation, lactation	reproductive	68.7	NOAEL	68.7	Sample et al., 1996	141.9
Iron (Ferrous sulfate)	rat	0.35	oral (acute)	1 time	mortality	319	LD50	3.19	USEPA, 1984	7.0
Lead (Lead acetate)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	8.0	NOAEL	8.0	Sample et al., 1996	17.6
Manganese (Manganese oxide)	rat	0.35	oral in diet (chronic)	224 d	reproductive	88	NOAEL	88	Sample et al., 1996	193.4
Mercury (Methyl mercury chloride)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	0.032	NOAEL	0.032	Sample et al., 1996	0.1
Nickel (Nickel sulfate hexahydrate)	rat	0.35	oral in diet (chronic)	3 gen	reproductive	40	NOAEL	40	Sample et al., 1996	87.9
Selenium (Selanate)	rat	0.35	oral in water (chronic)	1 year	reproductive	0.2	NOAEL	0.2	Sample et al., 1996	0.4
Silver	rat	0.35	oral in water (acute)	2 wk	mortality	181.2	NOAEL	181.2	ATSDR, 1990	398.2
Thallium (Thallium sulfate)	rat	0.37	oral in water (subchronic)	60 d	reproductive	0.74	LOAEL	0.074	Sample et al., 1996	0.164
Vanadium (Sodium metavanadate)	rat	0.26	oral intubation (chronic)	60 d +	reproductive	2.1	LOAEL	0.21	Sample et al., 1996	0.4
Zinc (Zinc oxide)	rat	0.35	oral in diet (chronic)	d 1-16 of gestation	reproductive	160	NOAEL	160	Sample et al., 1996	351.7

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TABLE 4-145
TOXICITY REFERENCE VALUES FOR SHREW

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern [1]	Test Species	Body Weight (kg) [2]	Exposure Route and Duration Class	Duration	System	Test RTV mg/kg - d [5]	Test RTV Type	NOAEL [6]	Source [7]	Wildlife RTV (mg/kg-d) [8]

Notes:

d - day

wk - week

gen - generations

UF - Uncertainty Factor

COPC - Chemical of Potential Concern

RTV - Reference Toxicity Value

NOAEL - No Observed Adverse Effect Level

LOAEL - Lowest Observed Adverse Effect Level

1 COPC or COPC and analyte/compound used in toxicological testing

2 Body weight for mouse and rat based on USEPA (1985b *cited in* Sample *et al* ., 1996), other body weights are actual body weights of animals used in test

3 Lowest carcinogenic LOAEL from PAH toxicological data summarized in ATSDR, 1995b; test used benzo(a)pyrene. USEPA has classified benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, chrysene, and indeno(1,2,3-cd)pyrene as carcinogens (ATSDR, 1995b).

4 Lowest non-carcinogenic NOAEL from PAH toxicological data summarized in ATSDR (1995b); test used benzo(a)pyrene. USEPA has indicated that acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, phenanthrene and pyrene are not classifiable as carcinogens (ATSDR, 1995b). Carbazole and dibenzofuran were included in this group for the development of HQs.

5 RTVs for studies in which dose was administered five times per week were multiplied for a factor of 0.7.

6 LOAELs were divided by a UF of 10 to obtain NOAELs. The LD_{50} for iron was divided by 100 to obtain a NOAEL (10 for the LD_{50} to LOAEL conversion and 10 for the LOAEL to NOAEL conversion)

7 Documents cited are review documents (i.e., secondary sources). Citations for primary sources may be obtained from these documents.

8 Test NOAELs were adjusted for wildlife species body weight using the following equation: $NOAEL_{wildlife} = NOAEL_{test} * (BW_{test}/BW_{wildlife}) \wedge 0.25$ (Sample *et al.* , 1996)

TABLE 4-146
HAZARD QUOTIENTS FOR MUSKRAT - STATION 01

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	8	92.0
	Acetone	0.0003	1367	<0.1	0.0	0.0	23	76.8
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	24	75.8
	Trichloroethene	0.00007	3.05	<0.1	0.0	0.0	24	75.8
	HAZARD INDEX			*0.000061*	*0.0*	*0.0*	*17*	*83.3*
Semivolatile Organics								
	2-Methylnaphthalene	0.0008	62.5	<0.1	0.0	0.0	68	32.2
	Acenaphthylene	0.0008	58.0	<0.1	0.0	0.0	68	32.2
	Anthracene	0.0006	435	<0.1	0.0	0.0	57	43.2
	Benzo(a)anthracene	0.0008	0.57	<0.1	0.0	0.0	69	31.2
	Benzo(a)pyrene	0.02	0.57	<0.1	0.0	96.0	2.8	1.2
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.2	5.6	2.2
	Benzo(g,h,i)perylene	0.0009	58.0	<0.1	0.0	0.0	73	27.2
	Benzo(k)fluoranthene	0.03	0.57	<0.1	0.0	96.8	2.3	1.0
	Carbazole	0.0005	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.9	3.8	1.3
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	68	32.2
	Dibenzofuran	0.0008	58.0	<0.1	0.0	0.0	68	32.2
	Fluoranthene	0.01	54.4	<0.1	0.0	88.9	8.8	2.3
	Fluorene	0.0007	54.4	<0.1	0.0	0.0	66	33.9
	Indeno(1,2,3-cd)pyrene	0.06	0.57	0.10	0.0	98.5	1.1	0.4
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	68	32.2
	N-nitrosodiphenylamine	0.0008	121	<0.1	0.0	0.0	68	32.2
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.6
	Pyrene	0.01	58.0	<0.1	0.0	91.2	6.9	1.8
	HAZARD INDEX			*0.25*	*0.0*	*95.6*	*3.1*	*1.3*
Pesticides and PCBs								
	4,4'-DDD	0.0002	6.84	<0.1	23.3	68.1	6.1	2.5
	4,4'-DDE	0.0003	0.83	<0.1	50.4	43.1	4.6	1.9
	4,4'-DDT	0.0005	0.64	<0.1	4.5	91.8	2.7	1.1
	Aldrin	0.00002	0.16	<0.1	54.8	0.0	32.4	12.7
	alpha-Chlordane	0.0002	1.99	<0.1	11.3	83.5	3.8	1.5
	Aroclor 1248	0.0003	0.57	<0.1	37.9	0.0	44	17.8
	Aroclor 1254	0.0006	0.15	<0.1	70.3	0.0	21	8.5
	Aroclor 1260	0.0022	0.28	<0.1	14.5	77.5	5.8	2.3
	beta-BHC	0.00002	3.22	<0.1	54.8	0.0	32.4	12.7
	delta-BHC	0.00002	1.29	<0.1	54.8	0.0	32.4	12.7
	Endosulfan I	0.0003	1.21	<0.1	6.4	90.1	2.5	1.0
	Endosulfan Sulfate	0.00004	1.21	<0.1	54.2	0.0	32.7	13.1
	Endrin Aldehyde	0.0009	0.04	<0.1	6.0	92.1	1.4	0.6
	gamma-Chlordane	0.0002	1.99	<0.1	7.8	86.4	4.2	1.6
	HAZARD INDEX			*0.037*	*16.0*	*76.5*	*5.3*	*2.1*
Inorganics								
X	Aluminum	58	41.82	1	1.2	77.1	21.6	0.0
	Antimony	0.003	0.05	<0.1	48.5	0.0	49.4	2.1
X	Arsenic	0.70	0.05	12.8	1.0	94.7	4.3	0.1
	Barium	0.86	4.33	0.20	7.0	88.4	4.2	0.4
	Beryllium	0.001	0.53	<0.1	30.9	0.0	68.4	0.7
	Cadmium	0.27	0.78	0.35	0.7	95.2	4.1	0.0
	Chromium	0.2	7.2	<0.1	2.6	77.9	19.4	0.1
	Cobalt	0.37	4.02	<0.1	2.2	92.9	4.9	0.0
	Copper	5.9	12.2	0.48	20.6	72.7	6.7	0.0
	Cyanide	0.007	51.9	<0.1	85.1	0.0	11.1	3.8
X	Iron	325	2.57	127	0.8	93.9	5.3	0.0
	Lead	3.00	6.43	0.47	0.2	94.9	4.8	0.0
	Manganese	32.6	70.8	0.46	7.2	91.9	0.8	0.1
	Mercury	0.00	0.03	<0.1	11.9	77.5	10.3	0.3
	Nickel	0.13	32.2	<0.1	1.0	83.8	15.1	0.1
	Selenium	0.03	0.16	0.21	46.1	50.9	2.8	0.2
	Silver	0.002	146	<0.1	77.3	0.0	21.2	1.5
	Thallium	0.004	0.06	<0.1	53.1	0.0	44.6	2.3
X	Vanadium	0.24	0.16	1.52	0.5	87.7	11.7	0.0
	Zinc	22.6	129	0.18	2.4	87.1	10.5	0.0
	HAZARD INDEX			*145.1*	*1.0*	*93.5*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-147
HAZARD QUOTIENTS FOR MUSKRAT - STATION 02

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	6	93.9
	Acetone	0.00029	1367	<0.1	0.0	0.0	13	86.7
	cis-1,2-Dichloroethene	0.00008	2504	<0.1	0.0	0.0	38	62.4
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	40	60.4
	Trichloroethene	0.00007	3.05	<0.1	0.0	0.0	26	73.6
	HAZARD INDEX			*0.000064*	*0.0*	*0.0*	*20*	*79.5*
Semivolatile Organics								
	2-Methylnaphthalene	0.0006	62.5	<0.1	0.0	0.0	59	40.7
	Acenaphthylene	0.0006	58.0	<0.1	0.0	0.0	60	40.4
	Anthracene	0.0006	435	<0.1	0.0	0.0	56	44.1
	Benzo(a)anthracene	0.0009	0.57	<0.1	0.0	0.0	73	27.0
	Benzo(a)pyrene	0.03	0.57	<0.1	0.0	96.2	2.8	1.0
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.5	5.7	1.9
	Benzo(g,h,i)perylene	0.0008	58.0	<0.1	0.0	0.0	67	32.5
	Benzo(k)fluoranthene	0.02	0.57	<0.1	0.0	96.7	2.3	1.1
	Carbazole	0.0005	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	95.0	3.8	1.2
	Dibenz(a,h)anthracene	0.0007	0.57	<0.1	0.0	0.0	61	38.7
	Dibenzofuran	0.0007	58.0	<0.1	0.0	0.0	66	34.5
	Fluoranthene	0.01	54.4	<0.1	0.0	89.2	8.8	2.0
	Fluorene	0.0006	54.4	<0.1	0.0	0.0	60	39.5
	Indeno(1,2,3-cd)pyrene	0.05	0.57	<0.1	0.0	98.4	1.1	0.5
	Naphthalene	0.0006	60.9	<0.1	0.0	0.0	59	40.7
	N-nitrosodiphenylamine	0.0007	121	<0.1	0.0	0.0	66	34.5
	Phenanthrene	0.04	58.0	<0.1	0.0	97.6	1.7	0.7
	Pyrene	0.02	58.0	<0.1	0.0	91.5	7.0	1.6
	HAZARD INDEX			*0.24*	*0.0*	*95.4*	*3.3*	*1.3*
Pesticides and PCBs								
	4,4'-DDD	0.0003	6.84	<0.1	19.0	72.4	6.5	2.0
	4,4'-DDE	0.0004	0.83	<0.1	35.5	57.1	6.1	1.3
	4,4'-DDT	0.0002	0.64	<0.1	11.1	83.9	2.4	2.6
	Aldrin	0.00002	0.16	<0.1	71.2	0.0	12.4	16.5
	alpha-Chlordane	0.0002	1.99	<0.1	9.0	85.9	3.9	1.2
	Aroclor 1248	0.0003	0.57	<0.1	37.3	0.0	45	17.6
	Aroclor 1254	0.0005	0.15	<0.1	82.7	0.0	7	10.0
	Aroclor 1260	0.0021	0.28	<0.1	15.2	76.6	5.7	2.4
	beta-BHC	0.00002	3.22	<0.1	71.2	0.0	12.4	16.5
	delta-BHC	0.00002	1.29	<0.1	68.0	0.0	16.3	15.8
	Endosulfan I	0.0001	1.21	<0.1	18.4	76.5	2.2	2.9
	Endosulfan Sulfate	0.00003	1.21	<0.1	70.1	0.0	13.0	16.9
	Endrin Aldehyde	0.0004	0.04	<0.1	14.8	82.6	1.3	1.4
	gamma-Chlordane	0.0002	1.99	<0.1	7.7	86.5	4.2	1.6
	HAZARD INDEX			*0.022*	*27.0*	*64.4*	*5.0*	*3.6*
Inorganics								
X	Aluminum	56	41.82	1	1.3	77.1	21.6	0.0
	Antimony	0.003	0.05	<0.1	42.7	0.0	55.5	1.8
X	Arsenic	0.54	0.05	9.8	1.3	94.3	4.3	0.1
	Barium	1.66	4.33	0.38	3.6	91.8	4.4	0.2
	Beryllium	0.001	0.53	<0.1	32.5	0.0	66.8	0.7
	Cadmium	0.07	0.78	<0.1	2.8	93.1	4.0	0.0
	Chromium	0.4	7.2	<0.1	1.3	78.9	19.7	0.0
	Cobalt	0.40	4.02	<0.1	2.0	93.1	4.9	0.0
	Copper	2.5	12.2	0.20	49.2	46.5	4.3	0.0
	Cyanide	0.007	51.9	<0.1	85.2	0.0	11.0	3.8
X	Iron	436	2.57	170	0.6	94.1	5.3	0.0
X	Lead	7.38	6.43	1.15	0.1	95.1	4.9	0.0
	Manganese	37.1	70.8	0.52	6.4	92.8	0.8	0.0
	Mercury	0.00	0.03	<0.1	9.4	79.7	10.6	0.3
	Nickel	0.17	32.2	<0.1	0.7	84.0	15.1	0.1
	Selenium	0.04	0.16	0.27	35.8	60.8	3.3	0.2
	Silver	0.002	146	<0.1	78.8	0.0	19.6	1.6
	Thallium	0.003	0.06	<0.1	61.3	0.0	36.0	2.7
X	Vanadium	0.37	0.16	2.34	0.3	87.9	11.8	0.0
	Zinc	8.0	129	<0.1	6.8	83.1	10.0	0.0
	HAZARD INDEX			*186.4*	*0.8*	*93.7*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-148
HAZARD QUOTIENTS FOR MUSKRAT - STATION 03

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00032	9.73	<0.1	0.0	0.0	20	79.8
	Acetone	0.0004	1367	<0.1	0.0	0.0	35	64.8
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	57	43.5
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	51	48.9
	Trichloroethene	0.00008	3.05	<0.1	0.0	0.0	35	65.2
	HAZARD INDEX			*0.000075*	*0.0*	*0.0*	*32*	*67.8*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	65	34.7
	Acenaphthylene	0.0005	58.0	<0.1	0.0	0.0	100	0.0
	Anthracene	0.0006	435	<0.1	0.0	0.0	58	42.0
	Benzo(a)anthracene	0.0014	0.57	<0.1	0.0	0.0	82	17.6
	Benzo(a)pyrene	0.04	0.57	<0.1	0.0	96.5	2.8	0.7
	Benzo(b)fluoranthene	0.02	0.57	<0.1	0.0	93.2	5.7	1.1
	Benzo(g,h,i)perylene	0.0010	58.0	<0.1	0.0	0.0	75	24.7
	Benzo(k)fluoranthene	0.04	0.57	<0.1	0.0	97.0	2.3	0.7
	Carbazole	0.0006	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.04	0.57	<0.1	0.0	95.5	3.8	0.7
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	68	32.3
	Dibenzofuran	0.0009	58.0	<0.1	0.0	0.0	71	28.9
	Fluoranthene	0.02	54.4	<0.1	0.0	90.1	8.9	1.0
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	69	31.3
	Indeno(1,2,3-cd)pyrene	0.07	0.57	0.13	0.0	98.6	1.1	0.3
	Naphthalene	0.0007	60.9	<0.1	0.0	0.0	65	34.7
	N-nitrosodiphenylamine	0.0009	121	<0.1	0.0	0.0	71	28.9
	Phenanthrene	0.06	58.0	<0.1	0.0	97.9	1.7	0.4
	Pyrene	0.03	58.0	<0.1	0.0	92.2	7.0	0.8
	HAZARD INDEX			*0.37*	*0.0*	*95.7*	*3.4*	*0.9*
Pesticides and PCBs								
	4,4'-DDD	0.0009	6.84	<0.1	5.3	86.3	7.8	0.6
	4,4'-DDE	0.0005	0.83	<0.1	30.5	61.8	6.6	1.1
	4,4'-DDT	0.0003	0.64	<0.1	6.8	89.0	2.6	1.6
	Aldrin	0.00002	0.16	<0.1	66.9	0.0	17.6	15.5
	alpha-Chlordane	0.0003	1.99	<0.1	7.1	87.9	4.0	0.9
	Aroclor 1248	0.0003	0.57	<0.1	36.0	0.0	47	16.9
	Aroclor 1254	0.0005	0.15	<0.1	81.0	0.0	9.2	9.8
	Aroclor 1260	0.0020	0.28	<0.1	16.0	75.8	5.6	2.6
	beta-BHC	0.00002	3.22	<0.1	66.9	0.0	17.6	15.5
	delta-BHC	0.00002	1.29	<0.1	63.5	0.0	21.8	14.7
	Endosulfan I	0.0001	1.21	<0.1	13.1	82.5	2.3	2.1
	Endosulfan Sulfate	0.00003	1.21	<0.1	66.2	0.0	17.7	16.0
	Endrin Aldehyde	0.0006	0.04	<0.1	8.7	89.1	1.4	0.8
	gamma-Chlordane	0.0002	1.99	<0.1	6.5	87.9	4.3	1.4
	HAZARD INDEX			*0.028*	*20.8*	*71.9*	*4.5*	*2.8*
Inorganics								
X	Aluminum	52	41.82	1	1.4	77.0	21.6	0.0
	Antimony	0.004	0.05	<0.1	38.7	0.0	59.6	1.7
X	Arsenic	0.97	0.05	17.7	0.7	94.9	4.3	0.0
	Barium	1.82	4.33	0.42	3.3	92.1	4.4	0.2
	Beryllium	0.001	0.53	<0.1	21.0	0.0	78.5	0.5
	Cadmium	0.12	0.78	0.16	1.5	94.4	4.1	0.0
	Chromium	0.9	7.2	0.12	0.7	79.5	19.8	0.0
	Cobalt	0.54	4.02	0.13	1.5	93.6	4.9	0.0
	Copper	3.31	12.23	0.27	36.6	58.1	5.3	0.0
	Cyanide	0.007	51.90	<0.1	81.0	0.0	15.4	3.6
X	Iron	487	2.57	190	0.5	94.1	5.3	0.0
	Lead	6.05	6.43	0.94	0.1	95.0	4.9	0.0
	Manganese	69.4	70.8	0.98	3.4	95.8	0.8	0.0
	Mercury	0.01	0.03	0.21	4.4	84.3	11.2	0.1
	Nickel	0.19	32.2	<0.1	0.7	84.1	15.2	0.1
	Selenium	0.08	0.16	0.50	19.0	76.8	4.2	0.1
	Silver	0.003	146	<0.1	71.0	0.0	27.6	1.4
	Thallium	0.003	0.06	<0.1	66.6	0.0	30.5	2.9
X	Vanadium	0.43	0.16	2.75	0.3	87.9	11.8	0.0
	Zinc	16.4	129	0.13	3.3	86.3	10.4	0.0
	HAZARD INDEX			*215.4*	*0.7*	*93.9*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-149
HAZARD QUOTIENTS FOR MUSKRAT - STATION 04

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00037	9.73	<0.1	0.0	0.0	32	68.3
	Acetone	0.0006	1367	<0.1	0.0	0.0	57	43.2
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	33	66.9
	Trichloroethene	0.00008	3.05	<0.1	0.0	0.0	33	66.9
	HAZARD INDEX			*0.000076*	*0.0*	*0.0*	*33*	*67.5*
Semivolatile Organics								
	2-Methylnaphthalene	0.0010	62.5	<0.1	0.0	0.0	74	25.8
	Acenaphthylene	0.0009	58.0	<0.1	0.0	0.0	73	27.2
	Anthracene	0.0014	435	<0.1	0.0	0.0	81	18.7
	Benzo(a)anthracene	0.0042	0.57	<0.1	0.0	0.0	94	6.0
	Benzo(a)pyrene	0.15	0.57	0.26	0.0	97.0	2.8	0.2
	Benzo(b)fluoranthene	0.08	0.57	0.14	0.0	93.9	5.7	0.3
	Benzo(g,h,i)perylene	0.0027	58.0	<0.1	0.0	0.0	91	9.4
	Benzo(k)fluoranthene	0.16	0.57	0.28	0.0	97.6	2.3	0.2
	Carbazole	0.0006	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.15	0.57	0.26	0.0	96.0	3.8	0.2
	Dibenz(a,h)anthracene	0.0014	0.57	<0.1	0.0	0.0	82	18.4
	Dibenzofuran	0.0008	58.0	<0.1	0.0	0.0	69	30.7
	Fluoranthene	0.09	54.4	<0.1	0.0	90.8	8.9	0.3
	Fluorene	0.0009	54.4	<0.1	0.0	0.0	71	28.5
	Indeno(1,2,3-cd)pyrene	0.20	0.57	0.36	0.0	98.8	1.1	0.1
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	69	30.9
	N-nitrosodiphenylamine	0.0010	121	<0.1	0.0	0.0	74	25.8
	Phenanthrene	0.26	58.0	<0.1	0.0	98.2	1.7	0.1
	Pyrene	0.11	58.0	<0.1	0.0	92.7	7.0	0.2
	HAZARD INDEX			*1.31*	*0.0*	*96.3*	*3.4*	*0.2*
Pesticides and PCBs								
	4,4'-DDD	0.0013	6.84	<0.1	3.7	87.9	7.9	0.4
	4,4'-DDE	0.0007	0.83	<0.1	20.1	71.5	7.7	0.7
	4,4'-DDT	0.0009	0.64	<0.1	2.3	94.4	2.7	0.5
	Aldrin	0.00003	0.16	<0.1	41.2	0.0	49.3	9.5
	alpha-Chlordane	0.0003	1.99	<0.1	5.9	89.2	4.1	0.8
	Aroclor 1248	0.0004	0.57	<0.1	26.1	0.0	62	12.3
	Aroclor 1254	0.0007	0.15	<0.1	57.9	0.0	35.1	7.0
	Aroclor 1260	0.0040	0.28	<0.1	7.8	84.6	6.3	1.3
	beta-BHC	0.00003	3.22	<0.1	41.2	0.0	49.3	9.5
	delta-BHC	0.00003	1.29	<0.1	41.2	0.0	49.3	9.5
	Endosulfan I	0.0005	1.21	<0.1	3.3	93.6	2.6	0.5
	Endosulfan Sulfate	0.00005	1.21	<0.1	40.8	0.0	49.4	9.9
	Endrin Aldehyde	0.0018	0.04	<0.1	3.1	95.2	1.4	0.3
	gamma-Chlordane	0.0003	1.99	<0.1	4.0	90.7	4.4	0.9
	HAZARD INDEX			*0.067*	*8.7*	*84.2*	*5.9*	*1.2*
Inorganics								
X	Aluminum	155	41.82	4	0.5	77.8	21.8	0.0
	Antimony	0.007	0.05	0.13	20.5	0.0	78.6	0.9
X	Arsenic	2.40	0.05	44	0.3	95.4	4.3	0.0
X	Barium	6.37	4.33	1.47	0.9	94.5	4.5	0.1
	Beryllium	0.002	0.53	<0.1	8.8	0.0	91.0	0.2
	Cadmium	0.43	0.78	0.55	0.4	95.4	4.1	0.0
	Chromium	2.7	7.2	0.37	0.2	79.9	19.9	0.0
	Cobalt	1.00	4.02	0.25	0.8	94.2	4.9	0.0
	Copper	10.0	12.2	0.82	12.1	80.5	7.4	0.0
	Cyanide	0.008	51.9	<0.1	67.2	0.0	29.8	3.0
X	Iron	1324	2.57	516	0.2	94.5	5.3	0.0
X	Lead	21.36	6.43	3.32	0.0	95.1	4.9	0.0
X	Manganese	194.8	70.8	2.75	1.2	98.0	0.8	0.0
	Mercury	0.02	0.03	0.71	1.3	87.1	11.6	0.0
	Nickel	0.44	32.2	<0.1	0.3	84.5	15.2	0.0
	Selenium	0.08	0.16	0.50	19.2	76.6	4.2	0.1
	Silver	0.003	146	<0.1	66.5	0.0	32.2	1.3
	Thallium	0.004	0.06	<0.1	51.2	0.0	46.6	2.3
X	Vanadium	1.03	0.16	6.54	0.1	88.1	11.8	0.0
	Zinc	37.7	129	0.29	1.5	88.0	10.6	0.0
	HAZARD INDEX			*581.6*	*0.3*	*94.3*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-150
HAZARD QUOTIENTS FOR MUSKRAT - STATION 05

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00029	9.73	<0.1	0.0	0.0	14	86.4
	Acetone	0.0003	1367	<0.1	0.0	0.0	24	76.0
	cis-1,2-Dichloroethene	0.00007	2504	<0.1	0.0	0.0	25	75.5
	Tetrachloroethene	0.00022	6.09	<0.1	0.0	0.0	9	90.5
	Trichloroethene	0.00007	3.05	<0.1	0.0	0.0	25	75.5
	HAZARD INDEX			*0.000089*	*0.0*	*0.0*	*15*	*85.4*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	64	35.6
	Acenaphthylene	0.0007	58.0	<0.1	0.0	0.0	61	38.6
	Anthracene	0.0009	435	<0.1	0.0	0.0	73	27.0
	Benzo(a)anthracene	0.0024	0.57	<0.1	0.0	0.0	89	10.7
	Benzo(a)pyrene	0.07	0.57	0.13	0.0	96.8	2.8	0.3
	Benzo(b)fluoranthene	0.04	0.57	<0.1	0.0	93.7	5.7	0.6
	Benzo(g,h,i)perylene	0.0013	58.0	<0.1	0.0	0.0	81	19.1
	Benzo(k)fluoranthene	0.07	0.57	0.12	0.0	97.4	2.3	0.4
	Carbazole	0.0005	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.06	0.57	0.11	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0007	0.57	<0.1	0.0	0.0	66	34.0
	Dibenzofuran	0.0006	58.0	<0.1	0.0	0.0	60	39.9
	Fluoranthene	0.05	54.4	<0.1	0.0	90.5	8.9	0.5
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	66	33.5
	Indeno(1,2,3-cd)pyrene	0.09	0.57	0.16	0.0	98.6	1.1	0.3
	Naphthalene	0.0006	60.9	<0.1	0.0	0.0	55	45.4
	N-nitrosodiphenylamine	0.0008	121	<0.1	0.0	0.0	69	30.8
	Phenanthrene	0.15	58.0	<0.1	0.0	98.1	1.7	0.2
	Pyrene	0.06	58.0	<0.1	0.0	92.5	7.0	0.4
	HAZARD INDEX			*0.61*	*0.0*	*95.9*	*3.5*	*0.5*
Pesticides and PCBs								
	4,4'-DDD	0.0028	6.84	<0.1	1.7	90.0	8.1	0.2
	4,4'-DDE	0.0007	0.83	<0.1	19.6	71.9	7.7	0.7
	4,4'-DDT	0.0008	0.64	<0.1	2.5	94.2	2.7	0.6
	Aldrin	0.00002	0.16	<0.1	52.2	0.0	35.7	12.1
	alpha-Chlordane	0.0005	1.99	<0.1	3.7	91.7	4.2	0.5
	Aroclor 1248	0.0004	0.57	<0.1	25.5	0.0	63	12.0
	Aroclor 1254	0.0006	0.15	<0.1	70.4	0.0	21.1	8.5
	Aroclor 1260	0.0034	0.28	<0.1	9.3	83.0	6.2	1.5
	beta-BHC	0.00002	3.22	<0.1	52.2	0.0	35.7	12.1
	delta-BHC	0.00002	1.29	<0.1	45.1	0.0	44.4	10.5
	Endosulfan I	0.0003	1.21	<0.1	5.6	91.0	2.6	0.9
	Endosulfan Sulfate	0.00004	1.21	<0.1	52.0	0.0	35.4	12.6
	Endrin Aldehyde	0.0010	0.04	<0.1	5.3	92.8	1.4	0.5
	gamma-Chlordane	0.0004	1.99	<0.1	2.7	92.3	4.5	0.6
	HAZARD INDEX			*0.046*	*12.8*	*79.7*	*5.8*	*1.7*
Inorganics								
X	Aluminum	55	41.82	1	1.3	77.1	21.6	0.0
	Antimony	0.004	0.05	<0.1	33.7	0.0	64.9	1.5
X	Arsenic	0.35	0.05	6.4	2.0	93.7	4.2	0.0
	Barium	1.71	4.33	0.40	3.5	91.8	4.4	0.3
	Beryllium	0.001	0.53	<0.1	22.4	0.0	77.2	0.4
	Cadmium	0.03	0.78	<0.1	5.6	90.5	3.9	0.0
	Chromium	0.7	7.2	0.10	0.8	79.4	19.8	0.0
	Cobalt	0.41	4.02	0.10	2.0	93.1	4.9	0.0
	Copper	2.3	12.2	0.19	52.7	43.3	4.0	0.0
	Cyanide	0.007	51.9	<0.1	83.7	0.0	12.6	3.7
X	Iron	494	2.57	192	0.5	94.2	5.3	0.0
X	Lead	11.37	6.43	1.77	0.1	95.1	4.9	0.0
X	Manganese	102.3	70.8	1.45	2.3	96.9	0.8	0.0
	Mercury	0.01	0.03	0.29	3.1	85.4	11.3	0.1
	Nickel	0.14	32.2	<0.1	0.9	83.9	15.1	0.1
	Selenium	0.04	0.16	0.23	41.9	54.9	3.0	0.2
	Silver	0.003	146	<0.1	75.3	0.0	23.3	1.5
	Thallium	0.003	0.06	<0.1	55.7	0.0	41.9	2.5
X	Vanadium	0.34	0.16	2.20	0.4	87.9	11.8	0.0
	Zinc	5.6	129	<0.1	9.7	80.6	9.7	0.0
	HAZARD INDEX			*207.1*	*0.7*	*93.8*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-151
HAZARD QUOTIENTS FOR MUSKRAT - STATION 06

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00037	9.73	<0.1	0.0	0.0	32	68.0
	Acetone	0.0005	1367	<0.1	0.0	0.0	49	50.7
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	64	36.2
	Tetrachloroethene	0.00010	6.09	<0.1	0.0	0.0	49	50.8
	Trichloroethene	0.00010	3.05	<0.1	0.0	0.0	50	49.6
	HAZARD INDEX			*0.000088*	*0.0*	*0.0*	*42*	*57.8*
Semivolatile Organics								
	2-Methylnaphthalene	0.0014	62.5	<0.1	0.0	0.0	82	17.8
	Acenaphthylene	0.0012	58.0	<0.1	0.0	0.0	80	20.2
	Anthracene	0.0014	435	<0.1	0.0	0.0	82	18.4
	Benzo(a)anthracene	0.0044	0.57	<0.1	0.0	0.0	94	5.7
	Benzo(a)pyrene	0.16	0.57	0.28	0.0	97.0	2.8	0.2
	Benzo(b)fluoranthene	0.09	0.57	0.15	0.0	94.0	5.7	0.3
	Benzo(g,h,i)perylene	0.0025	58.0	<0.1	0.0	0.0	90	10.1
	Benzo(k)fluoranthene	0.10	0.57	0.18	0.0	97.5	2.3	0.3
	Carbazole	0.0013	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.16	0.57	0.29	0.0	96.0	3.8	0.2
	Dibenz(a,h)anthracene	0.0017	0.57	<0.1	0.0	0.0	85	14.5
	Dibenzofuran	0.0017	58.0	<0.1	0.0	0.0	85	14.9
	Fluoranthene	0.13	54.4	<0.1	0.0	90.9	9.0	0.2
	Fluorene	0.0010	54.4	<0.1	0.0	0.0	75	25.4
	Indeno(1,2,3-cd)pyrene	0.21	0.57	0.37	0.0	98.8	1.1	0.1
	Naphthalene	0.0014	60.9	<0.1	0.0	0.0	82	17.7
	N-nitrosodiphenylamine	0.0017	121	<0.1	0.0	0.0	85	14.9
	Phenanthrene	0.37	58.0	<0.1	0.0	98.2	1.7	0.1
	Pyrene	0.11	58.0	<0.1	0.0	92.7	7.0	0.2
	HAZARD INDEX			*1.29*	*0.0*	*96.1*	*3.6*	*0.2*
Pesticides and PCBs								
	4,4'-DDD	0.0021	6.84	<0.1	4.6	87.3	7.9	0.2
	4,4'-DDE	0.0019	0.83	<0.1	9.0	81.9	8.8	0.3
	4,4'-DDT	0.0015	0.64	<0.1	2.8	94.2	2.7	0.3
	Aldrin	0.00002	0.16	<0.1	32.0	0.0	57.3	10.7
	alpha-Chlordane	0.0019	1.99	<0.1	2.3	93.3	4.2	0.1
	Aroclor 1248	0.0005	0.57	<0.1	16.5	0.0	72	11.2
	Aroclor 1254	0.0006	0.15	<0.1	48.0	0.0	43.4	8.5
	Aroclor 1260	0.0051	0.28	<0.1	13.8	79.3	5.9	1.0
	beta-BHC	0.00002	3.22	<0.1	34.6	0.0	55.1	10.3
	delta-BHC	0.00004	1.29	<0.1	20.0	0.0	73.3	6.7
	Endosulfan I	0.0005	1.21	<0.1	1.5	95.3	2.7	0.5
	Endosulfan Sulfate	0.00005	1.21	<0.1	39.6	0.0	50.7	9.7
	Endrin Aldehyde	0.0018	0.04	<0.1	2.3	95.9	1.5	0.3
	gamma-Chlordane	0.0009	1.99	<0.1	1.9	93.3	4.5	0.3
	HAZARD INDEX			*0.076*	*8.0*	*84.9*	*6.0*	*1.0*
Inorganics								
X	Aluminum	108	41.82	3	1.6	76.9	21.5	0.0
	Antimony	0.007	0.05	0.12	20.2	0.0	78.9	0.9
X	Arsenic	2.09	0.05	38.1	2.2	93.6	4.2	0.0
X	Barium	4.38	4.33	1.01	9.5	86.3	4.1	0.1
	Beryllium	0.002	0.53	<0.1	7.7	0.0	92.0	0.3
	Cadmium	0.28	0.78	0.37	0.5	95.4	4.1	0.0
	Chromium	3.6	7.2	0.50	0.7	79.5	19.8	0.0
	Cobalt	0.67	4.02	0.17	1.8	93.3	4.9	0.0
	Copper	7.8	12.2	0.64	15.7	77.2	7.1	0.0
	Cyanide	0.011	51.9	<0.1	64.6	0.0	33.2	2.2
X	Iron	1009	2.57	393	0.8	93.9	5.3	0.0
X	Lead	17.66	6.43	2.74	0.2	95.0	4.8	0.0
X	Manganese	197.1	70.8	2.79	1.5	97.7	0.8	0.0
X	Mercury	0.03	0.03	1.06	0.7	87.6	11.6	0.0
	Nickel	0.34	32.2	<0.1	0.9	84.0	15.1	0.1
	Selenium	0.07	0.16	0.44	18.0	77.7	4.2	0.1
	Silver	0.001	146	<0.1	54.7	0.0	42.7	2.5
	Thallium	0.004	0.06	<0.1	53.5	0.0	44.1	2.4
X	Vanadium	0.81	0.16	5.20	0.7	87.5	11.7	0.0
	Zinc	24.0	129	0.19	3.0	86.6	10.4	0.0
	HAZARD INDEX			*449.2*	*1.0*	*93.6*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-152
HAZARD QUOTIENTS FOR MUSKRAT - STATION 07

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00031	9.73	<0.1	0.0	0.0	17	82.6
	Acetone	0.0004	1367	<0.1	0.0	0.0	30	70.0
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	49	51.1
	Tetrachloroethene	0.00009	6.09	<0.1	0.0	0.0	47	53.2
	Trichloroethene	0.00008	3.05	<0.1	0.0	0.0	40	59.6
	HAZARD INDEX			*0.00008*	*0.0*	*0.0*	*32*	*67.9*
Semivolatile Organics								
	2-Methylnaphthalene	0.0011	62.5	<0.1	0.0	0.0	77	22.5
	Acenaphthylene	0.0011	58.0	<0.1	0.0	0.0	77	22.7
	Anthracene	0.0017	435	<0.1	0.0	0.0	85	15.1
	Benzo(a)anthracene	0.0096	0.57	<0.1	0.0	0.0	97	2.6
	Benzo(a)pyrene	0.32	0.57	0.57	0.0	97.1	2.8	0.1
	Benzo(b)fluoranthene	0.28	0.57	0.49	0.0	94.1	5.8	0.1
	Benzo(g,h,i)perylene	0.0044	58.0	<0.1	0.0	0.0	94	5.7
	Benzo(k)fluoranthene	0.54	0.57	0.96	0.0	97.7	2.3	0.0
	Carbazole	0.0008	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.31	0.57	0.54	0.0	96.1	3.8	0.1
	Dibenz(a,h)anthracene	0.0016	0.57	<0.1	0.0	0.0	84	15.8
	Dibenzofuran	0.0012	58.0	<0.1	0.0	0.0	79	20.9
	Fluoranthene	0.24	54.4	<0.1	0.0	90.9	9.0	0.1
	Fluorene	0.0012	54.4	<0.1	0.0	0.0	78	21.6
	Indeno(1,2,3-cd)pyrene	0.43	0.57	0.77	0.0	98.8	1.1	0.1
	Naphthalene	0.0011	60.9	<0.1	0.0	0.0	77	22.7
	N-nitrosodiphenylamine	0.0016	121	<0.1	0.0	0.0	84	16.2
	Phenanthrene	0.57	58.0	<0.1	0.0	98.3	1.7	0.0
	Pyrene	0.24	58.0	<0.1	0.0	92.8	7.1	0.1
	HAZARD INDEX			*3.36*	*0.0*	*96.5*	*3.4*	*0.1*
Pesticides and PCBs								
	4,4'-DDD	0.0012	6.84	<0.1	8.1	83.9	7.6	0.4
	4,4'-DDE	0.0010	0.83	<0.1	17.9	73.6	7.9	0.5
	4,4'-DDT	0.0019	0.64	<0.1	2.2	94.8	2.7	0.3
	Aldrin	0.00002	0.16	<0.1	46.7	0.0	37.7	15.6
	alpha-Chlordane	0.0020	1.99	<0.1	2.2	93.4	4.3	0.1
	Aroclor 1248	0.0002	0.57	<0.1	32.0	0.0	46	21.8
	Aroclor 1254	0.0004	0.15	<0.1	68.2	0.0	19.7	12.1
	Aroclor 1260	0.0025	0.28	<0.1	27.8	65.3	4.9	2.0
	beta-BHC	0.00002	3.22	<0.1	45.8	0.0	40.6	13.6
	delta-BHC	0.00002	1.29	<0.1	36.5	0.0	51.2	12.2
	Endosulfan I	0.0002	1.21	<0.1	4.2	91.8	2.6	1.4
	Endosulfan Sulfate	0.00003	1.21	<0.1	60.2	0.0	25.1	14.7
	Endrin Aldehyde	0.0009	0.04	<0.1	4.6	93.4	1.4	0.6
	gamma-Chlordane	0.0013	1.99	<0.1	1.3	93.9	4.6	0.2
	HAZARD INDEX			*0.042*	*14.6*	*79.1*	*4.4*	*1.9*
Inorganics								
X	Aluminum	111	41.82	3	1.6	76.9	21.5	0.0
	Antimony	0.006	0.05	0.11	22.1	0.0	75.7	2.1
X	Arsenic	1.75	0.05	32.0	2.6	93.2	4.2	0.0
	Barium	3.87	4.33	0.89	10.8	85.1	4.1	0.1
	Beryllium	0.001	0.53	<0.1	8.2	0.0	91.4	0.3
	Cadmium	0.19	0.78	0.25	0.7	95.1	4.1	0.0
	Chromium	2.2	7.2	0.30	1.2	79.1	19.7	0.0
	Cobalt	0.69	4.02	0.17	1.7	93.4	4.9	0.0
	Copper	6.1	12.2	0.50	20.2	73.1	6.7	0.0
	Cyanide	0.009	51.9	<0.1	79.1	0.0	18.2	2.7
X	Iron	919	2.57	358	0.9	93.8	5.3	0.0
X	Lead	12.92	6.43	2.01	0.2	94.9	4.8	0.0
X	Manganese	99.3	70.8	1.40	3.0	96.2	0.8	0.1
X	Mercury	0.03	0.03	1.13	0.7	87.6	11.6	0.1
	Nickel	0.35	32.2	<0.1	0.8	84.0	15.1	0.0
	Selenium	0.07	0.16	0.42	19.1	76.6	4.2	0.1
	Silver	0.002	146	<0.1	42.3	0.0	55.7	1.9
	Thallium	0.006	0.06	<0.1	34.0	0.0	64.5	1.5
X	Vanadium	0.81	0.16	5.15	0.7	87.5	11.7	0.0
	Zinc	22.0	129	0.17	3.3	86.4	10.4	0.0
	HAZARD INDEX			*405.4*	*1.1*	*93.4*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-153
HAZARD QUOTIENTS FOR MUSKRAT - STATION 08

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	6	94.2
	Acetone	0.00027	1367	<0.1	0.0	0.0	8	92.2
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.00007	6.09	<0.1	0.0	0.0	24	76.4
	Trichloroethene	0.00017	3.05	<0.1	0.0	0.0	9	90.7
	HAZARD INDEX			*0.00009*	*0.0*	*0.0*	*10*	*90.0*
Semivolatile Organics								
	2-Methylnaphthalene	0.0008	62.5	<0.1	0.0	0.0	67	33.0
	Acenaphthylene	0.0006	58.0	<0.1	0.0	0.0	55	44.6
	Anthracene	0.0005	435	<0.1	0.0	0.0	48	52.2
	Benzo(a)anthracene	0.0014	0.57	<0.1	0.0	0.0	82	18.2
	Benzo(a)pyrene	0.05	0.57	<0.1	0.0	96.7	2.8	0.5
	Benzo(b)fluoranthene	0.05	0.57	<0.1	0.0	93.8	5.7	0.5
	Benzo(g,h,i)perylene	0.0012	58.0	<0.1	0.0	0.0	79	20.7
	Benzo(k)fluoranthene	0.14	0.57	0.25	0.0	97.5	2.3	0.2
	Carbazole	0.0003	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.04	0.57	<0.1	0.0	95.6	3.8	0.6
	Dibenz(a,h)anthracene	0.0005	0.57	<0.1	0.0	0.0	46	53.6
	Dibenzofuran	0.0006	58.0	<0.1	0.0	0.0	59	41.0
	Fluoranthene	0.02	54.4	<0.1	0.0	90.1	8.9	1.1
	Fluorene	0.0004	54.4	<0.1	0.0	0.0	40	59.7
	Indeno(1,2,3-cd)pyrene	0.09	0.57	0.15	0.0	98.6	1.1	0.3
	Naphthalene	0.0005	60.9	<0.1	0.0	0.0	48	52.3
	N-nitrosodiphenylamine	0.0006	121	<0.1	0.0	0.0	61	39.1
	Phenanthrene	0.07	58.0	<0.1	0.0	97.9	1.7	0.4
	Pyrene	0.04	58.0	<0.1	0.0	92.3	7.0	0.7
	HAZARD INDEX			*0.66*	*0.0*	*96.4*	*3.1*	*0.5*
Pesticides and PCBs								
	4,4'-DDD	0.0003	6.84	<0.1	33.9	59.0	5.3	1.7
	4,4'-DDE	0.0003	0.83	<0.1	70.4	25.4	2.7	1.5
	4,4'-DDT	0.0002	0.64	<0.1	15.9	79.3	2.3	2.6
	Aldrin	0.00001	0.16	<0.1	60.7	0.0	20.3	19.0
	alpha-Chlordane	0.0001	1.99	<0.1	20.7	73.1	3.3	2.8
	Aroclor 1248	0.0002	0.57	<0.1	42.0	0.0	30	28.4
	Aroclor 1254	0.0008	0.15	<0.1	86.4	0.0	6.9	6.6
	Aroclor 1260	0.0020	0.28	<0.1	60.2	34.8	2.6	2.5
	beta-BHC	0.00001	3.22	<0.1	58.8	0.0	21.2	19.9
	delta-BHC	0.00001	1.29	<0.1	62.0	0.0	17.0	21.0
	Endosulfan I	0.0001	1.21	<0.1	6.9	88.2	2.5	2.3
	Endosulfan Sulfate	0.00003	1.21	<0.1	67.4	0.0	16.6	15.9
	Endrin Aldehyde	0.0003	0.04	<0.1	30.3	67.0	1.0	1.7
	gamma-Chlordane	0.000050	1.99	<0.1	15.0	76.2	3.7	5.1
	HAZARD INDEX			*0.021*	*55.2*	*37.4*	*3.6*	*3.7*
Inorganics								
X	Aluminum	60	41.82	1	2.6	76.1	21.3	0.0
	Antimony	0.004	0.05	<0.1	39.9	0.0	58.6	1.5
X	Arsenic	0.60	0.05	11.0	13.4	82.7	3.7	0.2
	Barium	1.27	4.33	0.29	23.4	72.9	3.5	0.3
	Beryllium	0.001	0.53	<0.1	27.0	0.0	72.3	0.6
	Cadmium	0.04	0.78	<0.1	8.7	87.4	3.8	0.1
	Chromium	0.7	7.2	<0.1	9.3	72.5	18.1	0.1
	Cobalt	0.36	4.02	<0.1	4.5	90.7	4.8	0.0
	Copper	3.9	12.2	0.32	47.5	48.0	4.4	0.0
	Cyanide	0.008	51.9	<0.1	87.5	0.0	9.3	3.3
X	Iron	593	2.57	231	1.7	93.0	5.2	0.0
	Lead	2.11	6.43	0.33	1.4	93.8	4.8	0.0
	Manganese	49.7	70.8	0.70	7.2	91.9	0.8	0.1
	Mercury	0.01	0.03	0.37	4.4	84.3	11.2	0.1
	Nickel	0.19	32.2	<0.1	1.6	83.3	15.0	0.1
	Selenium	0.03	0.16	0.18	39.8	56.9	3.1	0.3
	Silver	0.001	146	<0.1	59.7	0.0	36.4	3.9
	Thallium	0.007	0.06	0.12	53.5	0.0	45.4	1.2
X	Vanadium	0.30	0.16	1.92	1.6	86.8	11.6	0.0
	Zinc	8.5	129	<0.1	9.8	80.5	9.7	0.1
	HAZARD INDEX			*248.1*	*2.4*	*92.2*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-154
HAZARD QUOTIENTS FOR MUSKRAT - STATION 09

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	6	94.3
	Acetone	0.00027	1367	<0.1	0.0	0.0	7	93.4
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.00007	6.09	<0.1	0.0	0.0	23	76.7
	Trichloroethene	0.00017	3.05	<0.1	0.0	0.0	9	90.8
	HAZARD INDEX			0.0001	*0.0*	*0.0*	*10*	*90.2*
Semivolatile Organics								
	2-Methylnaphthalene	0.0008	62.5	<0.1	0.0	0.0	67	33.0
	Acenaphthylene	0.0007	58.0	<0.1	0.0	0.0	66	34.4
	Anthracene	0.0009	435	<0.1	0.0	0.0	73	27.1
	Benzo(a)anthracene	0.0007	0.57	<0.1	0.0	0.0	66	33.7
	Benzo(a)pyrene	0.02	0.57	<0.1	0.0	95.7	2.8	1.4
	Benzo(b)fluoranthene	0.02	0.57	<0.1	0.0	92.8	5.7	1.5
	Benzo(g,h,i)perylene	0.0007	58.0	<0.1	0.0	0.0	66	33.9
	Benzo(k)fluoranthene	0.04	0.57	<0.1	0.0	97.1	2.3	0.7
	Carbazole	0.0006	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.6	3.8	1.6
	Dibenz(a,h)anthracene	0.0007	0.57	<0.1	0.0	0.0	66	34.5
	Dibenzofuran	0.0008	58.0	<0.1	0.0	0.0	70	30.4
	Fluoranthene	0.01	54.4	<0.1	0.0	88.5	8.7	2.8
	Fluorene	0.0009	54.4	<0.1	0.0	0.0	71	29.1
	Indeno(1,2,3-cd)pyrene	0.04	0.57	<0.1	0.0	98.3	1.1	0.6
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	67	32.7
	N-nitrosodiphenylamine	0.0008	121	<0.1	0.0	0.0	67	33.2
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.6
	Pyrene	0.01	58.0	<0.1	0.0	91.1	6.9	2.0
	HAZARD INDEX			*0.23*	*0.0*	*95.3*	*3.4*	*1.4*
Pesticides and PCBs								
	4,4'-DDD	0.0006	6.84	<0.1	17.7	74.7	6.7	0.9
	4,4'-DDE	0.0004	0.83	<0.1	55.9	38.8	4.2	1.2
	4,4'-DDT	0.0004	0.64	<0.1	8.5	87.6	2.5	1.4
	Aldrin	0.00001	0.16	<0.1	67.0	0.0	12.0	21.0
	alpha-Chlordane	0.0001	1.99	<0.1	28.2	65.0	3.0	3.8
	Aroclor 1248	0.0002	0.57	<0.1	42.4	0.0	29	28.7
	Aroclor 1254	0.0008	0.15	<0.1	86.6	0.0	6.7	6.7
	Aroclor 1260	0.0020	0.28	<0.1	61.0	34.0	2.5	2.5
	beta-BHC	0.00001	3.22	<0.1	63.8	0.0	14.6	21.6
	delta-BHC	0.00001	1.29	<0.1	60.8	0.0	18.7	20.6
	Endosulfan I	0.0001	1.21	<0.1	8.4	86.3	2.4	2.8
	Endosulfan Sulfate	0.00003	1.21	<0.1	67.8	0.0	16.2	16.0
	Endrin Aldehyde	0.0004	0.04	<0.1	21.6	76.0	1.2	1.2
	gamma-Chlordane	0.000049	1.99	<0.1	15.4	75.7	3.7	5.2
	HAZARD INDEX			*0.024*	*48.0*	*45.5*	*3.3*	*3.2*
Inorganics								
X	Aluminum	47	41.82	1	3.3	75.5	21.1	0.0
	Antimony	0.004	0.05	<0.1	45.5	0.0	52.9	1.7
X	Arsenic	0.89	0.05	16.3	9.0	86.9	3.9	0.1
	Barium	1.38	4.33	0.32	21.6	74.6	3.6	0.2
	Beryllium	0.001	0.53	<0.1	33.4	0.0	65.8	0.8
	Cadmium	0.03	0.78	<0.1	10.8	85.3	3.7	0.2
	Chromium	0.6	7.2	<0.1	11.1	71.1	17.7	0.1
	Cobalt	0.30	4.02	<0.1	5.5	89.8	4.7	0.0
	Copper	3.2	12.2	0.26	58.8	37.7	3.5	0.0
	Cyanide	0.008	51.9	<0.1	87.9	0.0	8.8	3.3
X	Iron	491	2.57	191	2.1	92.7	5.2	0.0
	Lead	1.49	6.43	0.23	1.9	93.3	4.8	0.0
X	Manganese	108.0	70.8	1.53	3.3	95.8	0.8	0.1
	Mercury	0.01	0.03	0.22	7.5	81.5	10.8	0.2
	Nickel	0.13	32.2	<0.1	2.4	82.6	14.9	0.1
	Selenium	0.03	0.16	0.20	37.4	59.1	3.2	0.2
	Silver	0.001	146	<0.1	59.8	0.0	36.3	3.9
	Thallium	0.006	0.06	0.10	63.9	0.0	34.7	1.4
X	Vanadium	0.23	0.16	1.47	2.0	86.4	11.6	0.0
	Zinc	4.2	129	<0.1	19.5	71.7	8.6	0.1
	HAZARD INDEX			*213.3*	*2.8*	*91.9*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-155
HAZARD QUOTIENTS FOR MUSKRAT - STATION 10

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00028	9.73	<0.1	0.0	0.0	11	88.7
	Acetone	0.0005	1367	<0.1	0.0	0.0	45	55.3
	cis-1,2-Dichloroethene	0.0002	2504	<0.1	0.0	0.0	63	37.1
	Tetrachloroethene	0.0002	6.09	<0.1	0.0	0.0	79	21.1
	Trichloroethene	0.00013	3.05	<0.1	0.0	0.0	62	38.2
	HAZARD INDEX			*0.00011*	*0.0*	*0.0*	*55*	*45.4*
Semivolatile Organics								
	2-Methylnaphthalene	0.0006	62.5	<0.1	0.0	0.0	60	40.3
	Acenaphthylene	0.0006	58.0	<0.1	0.0	0.0	59	40.5
	Anthracene	0.0007	435	<0.1	0.0	0.0	63	36.6
	Benzo(a)anthracene	0.0011	0.57	<0.1	0.0	0.0	76	23.7
	Benzo(a)pyrene	0.03	0.57	<0.1	0.0	96.3	2.8	0.8
	Benzo(b)fluoranthene	0.02	0.57	<0.1	0.0	93.0	5.7	1.3
	Benzo(g,h,i)perylene	0.0009	58.0	<0.1	0.0	0.0	73	27.0
	Benzo(k)fluoranthene	0.04	0.57	<0.1	0.0	97.1	2.3	0.7
	Carbazole	0.0007	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.03	0.57	<0.1	0.0	95.2	3.8	1.0
	Dibenz(a,h)anthracene	0.0007	0.57	<0.1	0.0	0.0	65	35.2
	Dibenzofuran	0.0010	58.0	<0.1	0.0	0.0	74	26.4
	Fluoranthene	0.02	54.4	<0.1	0.0	89.5	8.8	1.6
	Fluorene	0.0007	54.4	<0.1	0.0	0.0	65	35.4
	Indeno(1,2,3-cd)pyrene	0.06	0.57	0.11	0.0	98.5	1.1	0.4
	Naphthalene	0.0007	60.9	<0.1	0.0	0.0	62	38.2
	N-nitrosodiphenylamine	0.0012	121	<0.1	0.0	0.0	80	20.4
	Phenanthrene	0.05	58.0	<0.1	0.0	97.8	1.7	0.5
	Pyrene	0.02	58.0	<0.1	0.0	91.7	7.0	1.3
	HAZARD INDEX			*0.32*	*0.0*	*95.8*	*3.2*	*1.0*
Pesticides and PCBs								
	4,4'-DDD	0.0021	6.84	<0.1	0.9	90.7	8.2	0.2
	4,4'-DDE	0.0013	0.83	<0.1	2.2	88.0	9.4	0.4
	4,4'-DDT	0.0002	0.64	<0.1	16.2	79.0	2.3	2.6
	Aldrin	0.00002	0.16	<0.1	38.2	0.0	51.2	10.6
	alpha-Chlordane	0.0005	1.99	<0.1	3.7	91.7	4.2	0.4
	Aroclor 1248	0.0005	0.57	<0.1	14.6	0.0	76	9.9
	Aroclor 1254	0.0007	0.15	<0.1	87.4	0.0	5.0	7.6
	Aroclor 1260	0.0042	0.28	<0.1	15.2	77.8	5.8	1.2
	beta-BHC	0.00001	3.22	<0.1	61.9	0.0	17.6	20.5
	delta-BHC	0.00001	1.29	<0.1	66.9	0.0	10.9	22.2
	Endosulfan I	0.0001	1.21	<0.1	18.7	76.6	2.2	2.5
	Endosulfan Sulfate	0.00004	1.21	<0.1	75.2	0.0	11.3	13.5
	Endrin Aldehyde	0.0008	0.04	<0.1	8.1	89.9	1.4	0.6
	gamma-Chlordane	0.0004	1.99	<0.1	1.8	93.1	4.5	0.5
	HAZARD INDEX			*0.044*	*18.9*	*74.0*	*5.4*	*1.8*
Inorganics								
X	Aluminum	259	41.82	6	0.6	77.7	21.7	0.0
	Antimony	0.036	0.05	0.66	4.2	0.0	95.7	0.2
X	Arsenic	24.03	0.05	438	0.5	95.2	4.3	0.0
	Barium	3.81	4.33	0.88	6.9	88.8	4.2	0.1
	Beryllium	0.004	0.53	<0.1	4.7	0.0	95.1	0.2
	Cadmium	0.76	0.78	0.98	0.2	95.6	4.2	0.0
X	Chromium	16.2	7.2	2.24	0.2	79.9	19.9	0.0
	Cobalt	1.05	4.02	0.26	1.4	93.7	4.9	0.0
X	Copper	49.1	12.2	4.02	3.3	88.6	8.1	0.0
	Cyanide	0.009	51.9	<0.1	85.8	0.0	11.5	2.7
X	Iron	1479	2.57	577	1.2	93.6	5.3	0.0
X	Lead	28.45	6.43	4.42	0.1	95.1	4.9	0.0
X	Manganese	154.7	70.8	2.19	1.7	97.5	0.8	0.0
X	Mercury	0.21	0.03	8.20	0.1	88.1	11.7	0.0
	Nickel	0.42	32.2	<0.1	0.5	84.3	15.2	0.1
X	Selenium	0.32	0.16	1.99	3.1	91.9	5.0	0.0
	Silver	0.002	146	<0.1	51.3	0.0	47.6	1.2
	Thallium	0.004	0.06	<0.1	54.8	0.0	43.0	2.1
X	Vanadium	1.05	0.16	6.70	0.4	87.8	11.8	0.0
	Zinc	48.7	129	0.38	1.8	87.7	10.5	0.0
	HAZARD INDEX			*1054*	*0.9*	*94.0*	*5.1*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-156
HAZARD QUOTIENTS FOR MUSKRAT - STATION 11

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00050	9.73	<0.1	0.0	0.0	50	50.2
	Acetone	0.0006	1367	<0.1	0.0	0.0	55	45.3
	cis-1,2-Dichloroethene	0.0005	2504	<0.1	0.0	0.0	87	12.9
	Tetrachloroethene	0.0002	6.09	<0.1	0.0	0.0	70	30.2
	Trichloroethene	0.00013	3.05	<0.1	0.0	0.0	60	39.7
	HAZARD INDEX			*0.00012*	*0.0*	*0.0*	*58*	*42.0*
Semivolatile Organics								
	2-Methylnaphthalene	0.0008	62.5	<0.1	0.0	0.0	69	31.4
	Acenaphthylene	0.0008	58.0	<0.1	0.0	0.0	68	31.7
	Anthracene	0.0008	435	<0.1	0.0	0.0	70	29.7
	Benzo(a)anthracene	0.0009	0.57	<0.1	0.0	0.0	72	27.8
	Benzo(a)pyrene	0.03	0.57	<0.1	0.0	96.4	2.8	0.8
	Benzo(b)fluoranthene	0.03	0.57	<0.1	0.0	93.4	5.7	0.9
	Benzo(g,h,i)perylene	0.0010	58.0	<0.1	0.0	0.0	76	24.2
	Benzo(k)fluoranthene	0.06	0.57	0.11	0.0	97.3	2.3	0.4
	Carbazole	0.0011	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.03	0.57	<0.1	0.0	95.2	3.8	1.0
	Dibenz(a,h)anthracene	0.0009	0.57	<0.1	0.0	0.0	72	28.0
	Dibenzofuran	0.0013	58.0	<0.1	0.0	0.0	81	19.1
	Fluoranthene	0.02	54.4	<0.1	0.0	89.7	8.8	1.4
	Fluorene	0.0009	54.4	<0.1	0.0	0.0	70	29.6
	Indeno(1,2,3-cd)pyrene	0.08	0.57	0.14	0.0	98.6	1.1	0.3
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	69	30.7
	N-nitrosodiphenylamine	0.0014	121	<0.1	0.0	0.0	82	17.8
	Phenanthrene	0.03	58.0	<0.1	0.0	97.4	1.7	0.9
	Pyrene	0.02	58.0	<0.1	0.0	91.8	7.0	1.2
	HAZARD INDEX			*0.41*	*0.0*	*96.1*	*3.1*	*0.8*
Pesticides and PCBs								
	4,4'-DDD	0.0007	6.84	<0.1	2.6	88.7	8.0	0.7
	4,4'-DDE	0.0002	0.83	<0.1	12.8	76.8	8.2	2.2
	4,4'-DDT	0.0001	0.64	<0.1	22.5	71.8	2.1	3.5
	Aldrin	0.00001	0.16	<0.1	73.3	0.0	6.3	20.3
	alpha-Chlordane	0.0002	1.99	<0.1	8.3	86.8	4.0	1.0
	Aroclor 1248	0.0004	0.57	<0.1	19.1	0.0	68	13.0
	Aroclor 1254	0.0007	0.15	<0.1	84.6	0.0	8.1	7.3
	Aroclor 1260	0.0045	0.28	<0.1	14.3	78.7	5.9	1.1
	beta-BHC	0.00001	3.22	<0.1	58.6	0.0	21.9	19.4
	delta-BHC	0.00001	1.29	<0.1	58.6	0.0	21.9	19.4
	Endosulfan I	0.0001	1.21	<0.1	13.3	82.5	2.3	1.8
	Endosulfan Sulfate	0.00004	1.21	<0.1	71.4	0.0	15.8	12.8
	Endrin Aldehyde	0.0006	0.04	<0.1	11.6	86.2	1.3	0.9
	gamma-Chlordane	0.0002	1.99	<0.1	4.8	89.5	4.3	1.4
	HAZARD INDEX			*0.037*	*22.5*	*69.8*	*5.6*	*2.1*
Inorganics								
X	Aluminum	101	41.82	2	1.4	77.0	21.5	0.0
	Antimony	0.005	0.05	<0.1	28.6	0.0	70.0	1.3
X	Arsenic	8.08	0.05	147	1.4	94.3	4.3	0.0
	Barium	4.32	4.33	1.00	6.1	89.6	4.3	0.1
	Beryllium	0.002	0.53	<0.1	10.9	0.0	88.7	0.4
	Cadmium	0.31	0.78	0.39	0.6	95.3	4.1	0.0
	Chromium	6.0	7.2	0.83	0.4	79.7	19.8	0.0
	Cobalt	0.85	4.02	0.21	1.7	93.4	4.9	0.0
	Copper	9.6	12.2	0.78	16.9	76.0	7.0	0.0
	Cyanide	0.010	51.9	<0.1	80.0	0.0	17.4	2.5
X	Iron	1356	2.57	529	1.3	93.5	5.3	0.0
X	Lead	13.26	6.43	2.06	0.1	95.0	4.9	0.0
X	Manganese	248.6	70.8	3.51	1.1	98.1	0.8	0.0
X	Mercury	0.04	0.03	1.74	0.6	87.7	11.7	0.0
	Nickel	0.29	32.2	<0.1	0.7	84.1	15.2	0.1
	Selenium	0.13	0.16	0.82	7.5	87.7	4.8	0.1
	Silver	0.002	146	<0.1	45.5	0.0	53.4	1.0
	Thallium	0.004	0.06	<0.1	55.5	0.0	42.4	2.2
X	Vanadium	0.65	0.16	4.18	0.6	87.6	11.7	0.0
	Zinc	33.2	129	0.26	2.6	86.9	10.5	0.0
	HAZARD INDEX			*694.5*	*1.3*	*93.5*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-157
HAZARD QUOTIENTS FOR MUSKRAT - STATION 12

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00037	9.73	<0.1	0.0	0.0	31	68.7
	Acetone	0.0007	1367	<0.1	0.0	0.0	65	35.1
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	50	50.1
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	63	37.1
	Trichloroethene	0.00009	3.05	<0.1	0.0	0.0	42	57.8
	HAZARD INDEX			*0.00009*	*0.0*	*0.0*	*43*	57.1
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	64	35.6
	Acenaphthylene	0.0007	58.0	<0.1	0.0	0.0	64	35.7
	Anthracene	0.0008	435	<0.1	0.0	0.0	66	33.6
	Benzo(a)anthracene	0.0009	0.57	<0.1	0.0	0.0	70	29.6
	Benzo(a)pyrene	0.03	0.57	<0.1	0.0	96.2	2.8	1.0
	Benzo(b)fluoranthene	0.03	0.57	<0.1	0.0	93.4	5.7	0.9
	Benzo(g,h,i)perylene	0.0010	58.0	<0.1	0.0	0.0	74	25.7
	Benzo(k)fluoranthene	0.05	0.57	<0.1	0.0	97.2	2.3	0.5
	Carbazole	0.0007	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	95.2	3.8	1.0
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	69	31.3
	Dibenzofuran	0.0009	58.0	<0.1	0.0	0.0	72	27.8
	Fluoranthene	0.02	54.4	<0.1	0.0	89.6	8.8	1.6
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	66	33.6
	Indeno(1,2,3-cd)pyrene	0.04	0.57	<0.1	0.0	98.3	1.1	0.6
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	68	32.2
	N-nitrosodiphenylamine	0.0006	121	<0.1	0.0	0.0	58	42.2
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.6
	Pyrene	0.02	58.0	<0.1	0.0	91.7	7.0	1.4
	HAZARD INDEX			*0.31*	*0.0*	*95.5*	*3.5*	*1.0*
Pesticides and PCBs								
	4,4'-DDD	0.0001	6.84	<0.1	24.2	63.7	5.7	6.3
	4,4'-DDE	0.0001	0.83	<0.1	37.9	50.2	5.4	6.6
	4,4'-DDT	0.0002	0.64	<0.1	17.9	77.0	2.2	2.8
	Aldrin	0.00001	0.16	<0.1	71.6	0.0	8.5	19.9
	alpha-Chlordane	0.0001	1.99	<0.1	20.2	74.0	3.4	2.4
	Aroclor 1248	0.0002	0.57	<0.1	42.1	0.0	29	28.5
	Aroclor 1254	0.0007	0.15	<0.1	86.3	0.0	6.2	7.5
	Aroclor 1260	0.0015	0.28	<0.1	43.4	49.5	3.7	3.4
	beta-BHC	0.00001	3.22	<0.1	60.6	0.0	19.4	20.1
	delta-BHC	0.00001	1.29	<0.1	61.8	0.0	17.6	20.5
	Endosulfan I	0.0001	1.21	<0.1	29.3	64.9	1.8	4.0
	Endosulfan Sulfate	0.00004	1.21	<0.1	75.3	0.0	11.2	13.5
	Endrin Aldehyde	0.0002	0.04	<0.1	26.3	70.6	1.1	2.0
	gamma-Chlordane	0.0001	1.99	<0.1	12.7	79.8	3.9	3.6
	HAZARD INDEX			*0.017*	*48.3*	*43.2*	*3.9*	*4.6*
Inorganics								
X	Aluminum	142	41.82	3	1.0	77.3	21.6	0.0
X	Antimony	0.095	0.05	1.74	1.6	0.0	98.4	0.1
X	Arsenic	39.95	0.05	729	0.3	95.4	4.3	0.0
	Barium	2.96	4.33	0.68	8.9	86.9	4.1	0.1
	Beryllium	0.002	0.53	<0.1	7.4	0.0	92.3	0.3
	Cadmium	0.36	0.78	0.47	0.5	95.4	4.1	0.0
	Chromium	6.5	7.2	0.90	0.4	79.7	19.9	0.0
	Cobalt	1.23	4.02	0.31	1.2	93.9	4.9	0.0
X	Copper	19.5	12.2	1.59	8.3	84.0	7.7	0.0
	Cyanide	0.010	51.9	<0.1	83.3	0.0	14.1	2.6
X	Iron	2499	2.57	974	0.7	94.0	5.3	0.0
X	Lead	18.66	6.43	2.90	0.1	95.1	4.9	0.0
X	Manganese	151.2	70.8	2.14	1.8	97.4	0.8	0.0
X	Mercury	0.20	0.03	7.83	0.1	88.1	11.7	0.0
	Nickel	0.24	32.2	<0.1	0.8	83.9	15.1	0.1
X	Selenium	0.41	0.16	2.53	2.4	92.5	5.0	0.0
	Silver	0.003	146	<0.1	34.5	0.0	64.7	0.8
	Thallium	0.004	0.06	<0.1	49.3	0.0	48.8	1.9
X	Vanadium	1.01	0.16	6.45	0.4	87.8	11.8	0.0
	Zinc	55.2	129	0.43	1.6	87.9	10.6	0.0
	HAZARD INDEX			*1734.4*	*0.5*	*94.4*	*5.1*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-158
HAZARD QUOTIENTS FOR MUSKRAT - STATION 13

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00053	9.73	<0.1	0.0	0.0	53	47.2
	Acetone	0.0060	1367	<0.1	0.0	0.0	96	4.2
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	41	59.4
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	64	36.3
	Trichloroethene	0.00010	3.05	<0.1	0.0	0.0	50	49.7
	HAZARD INDEX			*0.00012*	*0.0*	*0.0*	*56*	*44.1*
Semivolatile Organics								
	2-Methylnaphthalene	0.0004	62.5	<0.1	0.0	0.0	42	57.8
	Acenaphthylene	0.0004	58.0	<0.1	0.0	0.0	38	62.1
	Anthracene	0.0007	435	<0.1	0.0	0.0	63	37.5
	Benzo(a)anthracene	0.0022	0.57	<0.1	0.0	0.0	88	11.6
	Benzo(a)pyrene	0.07	0.57	0.13	0.0	96.8	2.8	0.3
	Benzo(b)fluoranthene	0.07	0.57	0.12	0.0	93.9	5.7	0.4
	Benzo(g,h,i)perylene	0.0012	58.0	<0.1	0.0	0.0	79	20.7
	Benzo(k)fluoranthene	0.13	0.57	0.24	0.0	97.5	2.3	0.2
	Carbazole	0.0004	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.06	0.57	0.11	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	67	33.1
	Dibenzofuran	0.00058	58.0	<0.1	0.0	0.0	57	43.5
	Fluoranthene	0.06	54.4	<0.1	0.0	90.6	8.9	0.4
	Fluorene	0.0006	54.4	<0.1	0.0	0.0	57	43.1
	Indeno(1,2,3-cd)pyrene	0.14	0.57	0.24	0.0	98.7	1.1	0.2
	Naphthalene	0.00045	60.9	<0.1	0.0	0.0	43	56.7
	N-nitrosodiphenylamine	0.00058	121	<0.1	0.0	0.0	57	43.5
	Phenanthrene	0.13	58.0	<0.1	0.0	98.1	1.7	0.2
	Pyrene	0.06	58.0	<0.1	0.0	92.5	7.0	0.5
	HAZARD INDEX			*0.85*	*0.0*	*96.4*	*3.2*	*0.4*
Pesticides and PCBs								
	4,4'-DDD	0.0017	6.84	<0.1	1.1	90.4	8.2	0.3
	4,4'-DDE	0.0007	0.83	<0.1	4.1	86.0	9.2	0.7
	4,4'-DDT	0.0003	0.64	<0.1	9.5	86.5	2.5	1.5
	Aldrin	0.00001	0.16	<0.1	67.2	0.0	14.1	18.6
	alpha-Chlordane	0.0014	1.99	<0.1	1.4	94.2	4.3	0.2
	Aroclor 1248	0.0003	0.57	<0.1	26.1	0.0	56	17.7
	Aroclor 1254	0.0007	0.15	<0.1	86.8	0.0	5.6	7.5
	Aroclor 1260	0.0062	0.28	<0.1	10.4	82.6	6.2	0.8
	beta-BHC	0.00001	3.22	<0.1	57.2	0.0	23.9	19.0
	delta-BHC	0.00002	1.29	<0.1	34.1	0.0	54.6	11.3
	Endosulfan I	0.0001	1.21	<0.1	30.2	63.9	1.8	4.1
	Endosulfan Sulfate	0.00004	1.21	<0.1	79.0	0.0	6.8	14.1
	Endrin Aldehyde	0.0008	0.04	<0.1	8.2	89.9	1.4	0.6
	gamma-Chlordane	0.0058	1.99	<0.1	0.1	95.2	4.6	0.0
	HAZARD INDEX			*0.053*	*15.6*	*78.2*	*4.7*	*1.5*
Inorganics								
X	Aluminum	233	41.82	6	0.6	77.6	21.7	0.0
X	Antimony	0.056	0.05	1.04	2.6	0.0	97.2	0.1
X	Arsenic	36.68	0.05	669.0	0.3	91.6	8.1	0.0
X	Barium	5.56	4.33	1.28	4.7	90.9	4.3	0.1
	Beryllium	0.003	0.53	<0.1	5.5	0.0	94.3	0.2
	Cadmium	0.47	0.78	0.60	0.4	95.5	4.2	0.0
	Chromium	6.1	7.2	0.84	0.4	79.7	19.9	0.0
	Cobalt	0.91	4.02	0.23	1.6	93.5	4.9	0.0
X	Copper	29.9	12.2	2.44	5.4	86.6	8.0	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1831	2.57	714	0.9	93.8	5.3	0.0
X	Lead	42.04	6.43	6.53	0.0	95.1	4.9	0.0
X	Manganese	192.6	70.8	2.72	1.4	97.8	0.8	0.0
X	Mercury	0.15	0.03	5.81	0.2	88.1	11.7	0.0
	Nickel	0.41	32.2	<0.1	0.5	84.2	15.2	0.1
X	Selenium	0.46	0.16	2.86	2.1	92.8	5.0	0.0
	Silver	0.003	146	<0.1	34.0	0.0	65.2	0.8
	Thallium	0.006	0.06	<0.1	34.8	0.0	63.8	1.4
X	Vanadium	1.49	0.16	9.49	0.3	87.9	11.8	0.0
	Zinc	37.6	129	0.29	2.3	87.2	10.5	0.0
	HAZARD INDEX			*1422.5*	*0.6*	*92.5*	*6.8*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not analyzed

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TABLE 4-159
HAZARD QUOTIENTS FOR MUSKRAT - STATION 14

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	6	94.4
	Acetone	0.0004	1367	<0.1	0.0	0.0	39	61.3
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.00007	6.09	<0.1	0.0	0.0	23	77.3
	Trichloroethene	0.00007	3.05	<0.1	0.0	0.0	23	77.3
	HAZARD INDEX			*0.000060*	*0.0*	*0.0*	*15*	85.1
Semivolatile Organics								
	2-Methylnaphthalene	0.0028	62.5	<0.1	0.0	0.0	91	9.0
	Acenaphthylene	0.0028	58.0	<0.1	0.0	0.0	91	9.0
	Anthracene	0.0025	435	<0.1	0.0	0.0	90	10.2
	Benzo(a)anthracene	0.0025	0.57	<0.1	0.0	0.0	90	10.0
	Benzo(a)pyrene	0.08	0.57	0.15	0.0	96.9	2.8	0.3
	Benzo(b)fluoranthene	0.06	0.57	0.10	0.0	93.8	5.7	0.4
	Benzo(g,h,i)perylene	0.0028	58.0	<0.1	0.0	0.0	91	9.0
	Benzo(k)fluoranthene	0.11	0.57	0.20	0.0	97.5	2.3	0.2
	Carbazole	0.0025	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.07	0.57	0.13	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0028	0.57	<0.1	0.0	0.0	91	9.0
	Dibenzofuran	0.0028	58.0	<0.1	0.0	0.0	91	9.0
	Fluoranthene	0.06	54.4	<0.1	0.0	90.7	8.9	0.4
	Fluorene	0.0028	54.4	<0.1	0.0	0.0	91	9.0
	Indeno(1,2,3-cd)pyrene	0.23	0.57	0.41	0.0	98.8	1.1	0.1
	Naphthalene	0.0028	60.9	<0.1	0.0	0.0	91	9.0
	N-nitrosodiphenylamine	0.0028	121	<0.1	0.0	0.0	91	9.0
	Phenanthrene	0.21	58.0	<0.1	0.0	98.2	1.7	0.1
	Pyrene	0.06	58.0	<0.1	0.0	92.5	7.0	0.5
	HAZARD INDEX			*1.00*	*0.0*	*96.4*	*3.3*	*0.3*
Pesticides and PCBs								
	4,4'-DDD	0.0003	6.84	<0.1	5.9	84.8	7.6	1.6
	4,4'-DDE	0.0003	0.83	<0.1	10.5	79.2	8.5	1.8
	4,4'-DDT	0.0009	0.64	<0.1	3.4	93.3	2.7	0.5
	Aldrin	0.00002	0.16	<0.1	36.6	0.0	53.3	10.1
	alpha-Chlordane	0.0002	1.99	<0.1	7.7	87.5	4.0	0.9
	Aroclor 1248	0.0004	0.57	<0.1	19.7	0.0	67	13.3
	Aroclor 1254	0.0009	0.15	<0.1	65.7	0.0	28.6	5.7
	Aroclor 1260	0.0044	0.28	<0.1	14.8	78.3	5.8	1.2
	beta-BHC	0.00002	3.22	<0.1	32.5	0.0	56.7	10.8
	delta-BHC	0.00002	1.29	<0.1	32.5	0.0	56.7	10.8
	Endosulfan I	0.0010	1.21	<0.1	1.9	95.2	2.7	0.3
	Endosulfan Sulfate	0.00006	1.21	<0.1	48.1	0.0	43.3	8.6
	Endrin Aldehyde	0.0018	0.04	<0.1	3.7	94.6	1.4	0.3
	gamma-Chlordane	0.0003	1.99	<0.1	2.6	92.2	4.5	0.7
	HAZARD INDEX			*0.070*	*11.8*	*81.4*	*5.7*	*1.1*
Inorganics								
	Aluminum	41	41.82	1	3.5	75.3	21.1	0.1
	Antimony	0.004	0.05	<0.1	40.3	0.0	57.8	1.9
X	Arsenic	1.81	0.05	33.0	6.2	89.6	4.0	0.1
	Barium	1.08	4.33	0.25	24.2	72.0	3.4	0.3
	Beryllium	0.0005	0.53	<0.1	35.7	0.0	63.0	1.3
	Cadmium	0.04	0.78	<0.1	4.5	91.4	4.0	0.1
	Chromium	1.3	7.2	0.17	2.1	78.2	19.5	0.2
	Cobalt	0.21	4.02	<0.1	7.0	88.3	4.6	0.1
	Copper	3.211	12.2	0.26	50.5	45.2	4.2	0.1
	Cyanide	0.009	51.9	<0.1	89.5	0.0	7.6	2.8
X	Iron	634	2.57	247	2.7	92.1	5.2	0.0
	Lead	3.31	6.43	0.51	0.5	94.7	4.8	0.0
	Manganese	40.6	70.8	0.57	6.5	92.6	0.8	0.1
	Mercury	0.01	0.03	0.47	2.2	86.1	11.5	0.2
	Nickel	0.11	32.2	<0.1	1.8	83.0	15.0	0.3
	Selenium	0.03	0.16	0.22	28.2	67.9	3.7	0.2
	Silver	0.001	146	<0.1	76.2	0.0	22.1	1.7
	Thallium	0.003	0.06	<0.1	62.2	0.0	35.4	2.4
X	Vanadium	0.23	0.16	1.48	1.8	86.6	11.6	0.1
	Zinc	5.7	129	<0.1	15.1	75.6	9.1	0.2
	HAZARD INDEX			*285.3*	*3.2*	*91.6*	*5.2*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-160
HAZARD QUOTIENTS FOR MUSKRAT - STATION 15

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.7	<0.1				
	Acetone	0.0008	1367	<0.1	0.0	0.0	70	30.1
	cis-1,2-Dichloroethene	0.0005	2504	<0.1	0.0	0.0	88	11.9
	Tetrachloroethene	0.0002	6.09	<0.1	0.0	0.0	76	24.1
	Trichloroethene	0.0003	3.05	<0.1	0.0	0.0	81	18.8
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*66*	34.1
Semivolatile Organics								
	2-Methylnaphthalene	0.00028	62.5	<0.1	0.0	0.0	8	91.5
	Acenaphthylene	0.00027	58.0	<0.1	0.0	0.0	6	93.9
	Anthracene	0.0004	435	<0.1	0.0	0.0	32	68.3
	Benzo(a)anthracene	0.0007	0.57	<0.1	0.0	0.0	65	35.0
	Benzo(a)pyrene	0.02	0.57	<0.1	0.0	95.5	2.8	1.7
	Benzo(b)fluoranthene	0.02	0.57	<0.1	0.0	92.9	5.7	1.4
	Benzo(g,h,i)perylene	0.0006	58.0	<0.1	0.0	0.0	58	41.8
	Benzo(k)fluoranthene	0.03	0.57	<0.1	0.0	96.8	2.3	0.9
	Carbazole	NA	58.0	<0.1				
	Chrysene	0.03	0.57	<0.1	0.0	95.2	3.8	1.0
	Dibenz(a,h)anthracene	0.0004	0.57	<0.1	0.0	0.0	36	64.2
	Dibenzofuran	NA	58.0	<0.1				
	Fluoranthene	0.03	54.4	<0.1	0.0	90.1	8.9	1.0
	Fluorene	0.0004	54.4	<0.1	0.0	0.0	39	61.0
	Indeno(1,2,3-cd)pyrene	0.04	0.57	<0.1	0.0	98.2	1.1	0.7
	Naphthalene	0.00029	60.9	<0.1	0.0	0.0	12	87.8
	N-nitrosodiphenylamine	NA	120.6	<0.1				
	Phenanthrene	0.06	58.0	<0.1	0.0	97.9	1.7	0.5
	Pyrene	0.02	58.0	<0.1	0.0	91.8	7.0	1.3
	HAZARD INDEX			*0.22*	*0.0*	*95.3*	*3.3*	*1.4*
Pesticides and PCBs								
	4,4'-DDD	0.0002	6.84	<0.1	8.8	81.6	7.4	2.3
	4,4'-DDE	0.0001	0.83	<0.1	23.1	65.8	7.1	4.0
	4,4'-DDT	0.0002	0.64	<0.1	17.2	77.9	2.3	2.7
	Aldrin	0.00001	0.16	<0.1	77.0	0.0	1.7	21.3
	alpha-Chlordane	0.0003	1.99	<0.1	5.4	89.8	4.1	0.6
	Aroclor 1248	0.0002	0.57	<0.1	33.0	0.0	45	22.4
	Aroclor 1254	0.0006	0.15	<0.1	91.5	0.0	0.6	7.9
	Aroclor 1260	0.0035	0.28	<0.1	18.4	74.6	5.6	1.4
	beta-BHC	0.00001	3.22	<0.1	73.6	0.0	1.9	24.4
	delta-BHC	0.00001	1.29	<0.1	73.6	0.0	1.9	24.4
	Endosulfan I	0.0007	1.21	<0.1	2.8	94.2	2.7	0.4
	Endosulfan Sulfate	0.00003	1.21	<0.1	83.8	0.0	1.1	15.0
	Endrin Aldehyde	0.0004	0.04	<0.1	17.1	80.4	1.2	1.3
	gamma-Chlordane	0.0001	1.99	<0.1	12.8	79.7	3.9	3.7
	HAZARD INDEX			*0.028*	*29.2*	*64.2*	*3.8*	*2.8*
Inorganics								
X	Aluminum	65	41.82	2	2.2	76.4	21.4	0.1
	Antimony	0.012	0.05	0.23	12.0	0.0	87.5	0.6
X	Arsenic	4.73	0.05	86	2.4	93.4	4.2	0.1
	Barium	3.22	4.33	0.74	8.2	87.5	4.2	0.1
	Beryllium	0.002	0.53	<0.1	7.6	0.0	92.2	0.3
X	Cadmium	1.58	0.78	2.04	0.1	95.7	4.2	0.0
	Chromium	3.2	7.2	0.44	0.8	79.3	19.8	0.1
	Cobalt	0.85	4.02	0.21	1.7	93.4	4.9	0.0
	Copper	11.4	12.2	0.93	14.2	78.6	7.2	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	771	2.57	301	2.2	92.5	5.2	0.0
	Lead	4.85	6.43	0.75	0.3	94.8	4.8	0.0
X	Manganese	320.6	70.8	4.53	0.8	98.3	0.8	0.0
	Mercury	0.02	0.03	0.71	1.5	86.9	11.5	0.1
	Nickel	0.26	32.2	<0.1	0.8	84.0	15.1	0.1
X	Selenium	0.25	0.16	1.54	4.0	91.1	4.9	0.0
	Silver	0.002	146	<0.1	61.0	0.0	37.6	1.4
	Thallium	0.008	0.06	0.13	26.1	0.0	72.9	1.0
X	Vanadium	0.40	0.16	2.52	1.0	87.2	11.7	0.0
	Zinc	58.1	129	0.45	1.5	87.9	10.6	0.0
	HAZARD INDEX			*403.6*	*2.3*	*92.5*	*5.1*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-161
HAZARD QUOTIENTS FOR MUSKRAT - STATION 16

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	7	92.6
	Acetone	0.00028	1367	<0.1	0.0	0.0	10	89.6
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	29	71.3
	Trichloroethene	0.00017	3.05	<0.1	0.0	0.0	12	88.2
	HAZARD INDEX			*0.000096*	*0.0*	*0.0*	*13*	*87.4*
Semivolatile Organics								
	2-Methylnaphthalene	0.0009	62.5	<0.1	0.0	0.0	72	27.8
	Acenaphthylene	0.0009	58.0	<0.1	0.0	0.0	72	27.8
	Anthracene	0.0009	435	<0.1	0.0	0.0	72	27.8
	Benzo(a)anthracene	0.0009	0.57	<0.1	0.0	0.0	72	27.8
	Benzo(a)pyrene	0.02	0.57	<0.1	0.0	96.1	2.8	1.1
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	91.7	5.6	2.7
	Benzo(g,h,i)perylene	0.0009	58.0	<0.1	0.0	0.0	72	27.8
	Benzo(k)fluoranthene	0.02	0.57	<0.1	0.0	96.7	2.3	1.1
	Carbazole	0.0007	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.8	3.8	1.5
	Dibenz(a,h)anthracene	0.0009	0.57	<0.1	0.0	0.0	72	27.8
	Dibenzofuran	0.0009	58.0	<0.1	0.0	0.0	72	27.8
	Fluoranthene	0.0033	54.4	<0.1	0.0	84.0	8.3	7.7
	Fluorene	0.0009	54.4	<0.1	0.0	0.0	72	27.8
	Indeno(1,2,3-cd)pyrene	0.06	0.57	0.11	0.0	98.5	1.1	0.4
	Naphthalene	0.0009	60.9	<0.1	0.0	0.0	72	27.8
	N-nitrosodiphenylamine	0.0009	121	<0.1	0.0	0.0	72	27.8
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.7
	Pyrene	0.00	58.0	<0.1	0.0	87.7	6.7	5.7
	HAZARD INDEX			*0.24*	*0.0*	*95.4*	*3.2*	*1.3*
Pesticides and PCBs								
	4,4'-DDD	0.0004	6.84	<0.1	28.1	64.6	5.8	1.4
	4,4'-DDE	0.0003	0.83	<0.1	79.9	16.6	1.8	1.7
	4,4'-DDT	0.0003	0.64	<0.1	11.0	84.7	2.5	1.8
	Aldrin	0.00001	0.16	<0.1	57.8	0.0	24.1	18.1
	alpha-Chlordane	0.0001	1.99	<0.1	23.5	70.1	3.2	3.2
	Aroclor 1248	0.0002	0.57	<0.1	39.1	0.0	34	26.5
	Aroclor 1254	0.0008	0.15	<0.1	85.0	0.0	8.5	6.5
	Aroclor 1260	0.0022	0.28	<0.1	55.1	39.6	3.0	2.3
	beta-BHC	0.00001	3.22	<0.1	55.9	0.0	25.2	18.9
	delta-BHC	0.00001	1.29	<0.1	58.5	0.0	21.7	19.8
	Endosulfan I	0.0001	1.21	<0.1	5.7	89.9	2.5	1.9
	Endosulfan Sulfate	0.00003	1.21	<0.1	64.8	0.0	19.9	15.3
	Endrin Aldehyde	0.0005	0.04	<0.1	16.5	81.3	1.2	0.9
	gamma-Chlordane	0.0000	1.99	<0.1	23.2	65.7	3.2	7.9
	HAZARD INDEX			*0.028*	*41.6*	*52.0*	*3.6*	*2.8*
Inorganics								
	Aluminum	34	41.82	1	4.7	74.5	20.8	0.0
	Antimony	0.002	0.05	<0.1	65.9	0.0	31.7	2.4
X	Arsenic	0.38	0.05	7.0	21.0	75.3	3.4	0.3
	Barium	1.06	4.33	0.24	28.1	68.3	3.3	0.3
	Beryllium	0.0003	0.53	<0.1	56.2	0.0	42.5	1.3
	Cadmium	0.01	0.78	<0.1	22.0	74.4	3.2	0.4
	Chromium	0.3	7.2	<0.1	21.1	63.0	15.7	0.2
	Cobalt	0.21	4.02	<0.1	7.8	87.5	4.6	0.0
	Copper	2.5	12.2	0.20	75.6	22.3	2.0	0.0
	Cyanide	0.0076	51.9	<0.1	88.8	0.0	7.8	3.3
X	Iron	257	2.57	100	4.0	90.9	5.1	0.0
	Lead	0.47	6.43	<0.1	6.2	89.2	4.6	0.1
	Manganese	35.6	70.8	0.50	10.1	89.0	0.7	0.2
	Mercury	0.0039	0.03	0.15	10.7	78.6	10.4	0.3
	Nickel	0.06	32.2	<0.1	4.9	80.3	14.5	0.3
	Selenium	0.02	0.16	0.15	48.0	49.0	2.7	0.3
	Silver	0.001	146	<0.1	61.7	0.0	34.3	4.0
	Thallium	0.005	0.06	<0.1	82.4	0.0	15.9	1.8
	Vanadium	0.15	0.16	0.93	3.2	85.3	11.4	0.1
	Zinc	2.8	129	<0.1	29.6	62.6	7.5	0.2
	HAZARD INDEX			*110.5*	*5.4*	*89.3*	*5.2*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-162
HAZARD QUOTIENTS FOR MUSKRAT - STATION 18

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00040	9.73	<0.1	0.0	0.0	38	62.5
	Acetone	0.0008	1367	<0.1	0.0	0.0	69	30.7
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	60	40.1
	Tetrachloroethene	0.0002	6.09	<0.1	0.0	0.0	72	27.6
	Trichloroethene	0.00010	3.05	<0.1	0.0	0.0	51	48.9
	HAZARD INDEX			*0.00011*	*0.0*	*0.0*	*52*	*48.1*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	65	35.3
	Acenaphthylene	0.0007	58.0	<0.1	0.0	0.0	65	35.3
	Anthracene	0.0008	435	<0.1	0.0	0.0	70	30.5
	Benzo(a)anthracene	0.0020	0.57	<0.1	0.0	0.0	87	12.6
	Benzo(a)pyrene	0.09	0.57	0.17	0.0	96.9	2.8	0.3
	Benzo(b)fluoranthene	0.04	0.57	<0.1	0.0	93.7	5.7	0.6
	Benzo(g,h,i)perylene	0.0021	58.0	<0.1	0.0	0.0	88	12.0
	Benzo(k)fluoranthene	0.06	0.57	0.11	0.0	97.3	2.3	0.4
	Carbazole	0.0007	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.06	0.57	0.11	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0011	0.57	<0.1	0.0	0.0	77	23.1
	Dibenzofuran	0.0010	58.0	<0.1	0.0	0.0	75	25.4
	Fluoranthene	0.04	54.4	<0.1	0.0	90.5	8.9	0.6
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	68	31.8
	Indeno(1,2,3-cd)pyrene	0.17	0.57	0.29	0.0	98.8	1.1	0.2
	Naphthalene	0.0007	60.9	<0.1	0.0	0.0	65	34.7
	N-nitrosodiphenylamine	0.0010	121	<0.1	0.0	0.0	74	26.1
	Phenanthrene	0.10	58.0	<0.1	0.0	98.0	1.7	0.3
	Pyrene	0.04	58.0	<0.1	0.0	92.4	7.0	0.6
	HAZARD INDEX			*0.76*	*0.0*	*96.4*	*3.1*	*0.4*
Pesticides and PCBs								
	4,4'-DDD	0.0002	6.84	<0.1	8.6	81.7	7.4	2.3
	4,4'-DDE	0.0003	0.83	<0.1	9.6	80.2	8.6	1.7
	4,4'-DDT	0.0002	0.64	<0.1	18.5	76.4	2.2	2.9
	Aldrin	0.00001	0.16	<0.1	65.6	0.0	16.3	18.2
	alpha-Chlordane	0.0004	1.99	<0.1	5.3	90.0	4.1	0.6
	Aroclor 1248	0.0003	0.57	<0.1	27.1	0.0	55	18.3
	Aroclor 1254	0.0007	0.15	<0.1	86.0	0.0	6.5	7.5
	Aroclor 1260	0.0030	0.28	<0.1	21.3	71.7	5.3	1.7
	beta-BHC	0.00001	3.22	<0.1	61.4	0.0	18.2	20.4
	delta-BHC	0.00001	1.29	<0.1	61.4	0.0	18.2	20.4
	Endosulfan I	0.0001	1.21	<0.1	18.1	77.3	2.2	2.4
	Endosulfan Sulfate	0.00004	1.21	<0.1	74.6	0.0	12.0	13.4
	Endrin Aldehyde	0.0005	0.04	<0.1	12.1	85.7	1.3	0.9
	gamma-Chlordane	0.0003	1.99	<0.1	2.5	92.3	4.5	0.7
	HAZARD INDEX			*0.031*	*26.8*	*66.1*	*4.6*	*2.5*
Inorganics								
X	Aluminum	155	41.82	4	0.9	77.4	21.7	0.0
	Antimony	0.026	0.05	0.48	5.7	0.0	94.1	0.3
X	Arsenic	20.10	0.05	367	0.6	95.1	4.3	0.0
X	Barium	4.47	4.33	1.03	5.9	89.8	4.3	0.1
	Beryllium	0.003	0.53	<0.1	5.7	0.0	94.1	0.2
	Cadmium	0.63	0.78	0.81	0.3	95.6	4.2	0.0
X	Chromium	20.2	7.2	2.79	0.1	79.9	19.9	0.0
	Cobalt	1.26	4.02	0.31	1.1	93.9	4.9	0.0
X	Copper	25.0	12.2	2.04	6.5	85.6	7.9	0.0
	Cyanide	0.010	51.9	<0.1	82.8	0.0	14.6	2.6
X	Iron	2467	2.57	962	0.7	94.0	5.3	0.0
X	Lead	17.08	6.43	2.65	0.1	95.0	4.9	0.0
X	Manganese	244.8	70.8	3.46	1.1	98.1	0.8	0.0
X	Mercury	0.07	0.03	2.91	0.4	87.9	11.7	0.0
	Nickel	0.35	32.2	<0.1	0.6	84.2	15.2	0.1
X	Selenium	0.26	0.16	1.59	3.8	91.2	4.9	0.0
	Silver	0.002	146	<0.1	47.9	0.0	51.0	1.1
	Thallium	0.004	0.06	<0.1	54.0	0.0	43.9	2.1
X	Vanadium	0.92	0.16	5.85	0.4	87.8	11.7	0.0
	Zinc	52.5	129	0.41	1.6	87.8	10.6	0.0
	HAZARD INDEX			*1356.5*	*0.7*	*94.2*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-163
HAZARD QUOTIENTS FOR MUSKRAT - STATION 19

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00078	9.73	<0.1	0.0	0.0	68	32.4
	Acetone	0.0010	1367	<0.1	0.0	0.0	0	0.0
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	NA	6.1	<0.1				
	Trichloroethene	NA	3.0	<0.1				
	HAZARD INDEX			*0.00011*	*0.0*	*0.0*	*52*	*48.3*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	65	35.0
	Acenaphthylene	0.0007	58.0	<0.1	0.0	0.0	65	35.0
	Anthracene	0.0007	435	<0.1	0.0	0.0	65	35.0
	Benzo(a)anthracene	0.0008	0.57	<0.1	0.0	0.0	67	33.4
	Benzo(a)pyrene	0.02	0.57	<0.1	0.0	96.0	2.8	1.2
	Benzo(b)fluoranthene	0.03	0.57	<0.1	0.0	93.4	5.7	0.9
	Benzo(g,h,i)perylene	0.0007	58.0	<0.1	0.0	0.0	65	35.0
	Benzo(k)fluoranthene	0.07	0.57	0.12	0.0	97.4	2.3	0.4
	Carbazole	0.0005	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.8	3.8	1.4
	Dibenz(a,h)anthracene	0.0007	0.57	<0.1	0.0	0.0	65	35.0
	Dibenzofuran	0.0007	58.0	<0.1	0.0	0.0	65	35.0
	Fluoranthene	0.01	54.4	<0.1	0.0	88.9	8.8	2.3
	Fluorene	0.0007	54.4	<0.1	0.0	0.0	65	35.0
	Indeno(1,2,3-cd)pyrene	0.04	0.57	<0.1	0.0	98.3	1.1	0.6
	Naphthalene	0.0007	60.9	<0.1	0.0	0.0	65	35.0
	N-nitrosodiphenylamine	NA	120.6	<0.1				
	Phenanthrene	0.03	58.0	<0.1	0.0	97.4	1.7	0.9
	Pyrene	0.01	58.0	<0.1	0.0	90.9	6.9	2.2
	HAZARD INDEX			*0.32*	*0.0*	*95.7*	*3.3*	*1.0*
Pesticides and PCBs								
	4,4'-DDD	0.0002	6.84	<0.1	10.5	79.6	7.2	2.7
	4,4'-DDE	0.0003	0.83	<0.1	11.3	78.4	8.4	2.0
	4,4'-DDT	0.0002	0.64	<0.1	14.3	81.1	2.4	2.3
	Aldrin	0.00001	0.16	<0.1	68.2	0.0	12.9	18.9
	alpha-Chlordane	0.0002	1.99	<0.1	10.1	84.8	3.9	1.2
	Aroclor 1248	0.0002	0.57	<0.1	46.2	0.0	22	31.3
	Aroclor 1254	0.0007	0.15	<0.1	87.0	0.0	5.4	7.6
	Aroclor 1260	0.0012	0.28	<0.1	52.8	40.1	3.0	4.2
	beta-BHC	0.00001	3.22	<0.1	53.2	0.0	29.2	17.6
	delta-BHC	0.00001	1.29	<0.1	63.4	0.0	15.6	21.0
	Endosulfan I	0.0001	1.21	<0.1	19.7	75.5	2.1	2.7
	Endosulfan Sulfate	0.00004	1.21	<0.1	76.5	0.0	9.8	13.7
	Endrin Aldehyde	0.0004	0.04	<0.1	18.2	79.2	1.2	1.4
	gamma-Chlordane	0.0002	1.99	<0.1	4.4	90.0	4.4	1.3
	HAZARD INDEX			*0.019*	*42.8*	*50.0*	*3.2*	*4.1*
Inorganics								
X	Aluminum	124	41.82	3	1.1	77.2	21.6	0.0
	Antimony	0.032	0.05	0.60	4.6	0.0	95.2	0.2
X	Arsenic	69.89	0.05	1275	0.2	95.5	4.3	0.0
X	Barium	5.71	4.33	1.32	4.6	91.0	4.3	0.1
	Beryllium	0.003	0.53	<0.1	5.9	0.0	93.9	0.2
	Cadmium	0.72	0.78	0.93	0.2	95.6	4.2	0.0
X	Chromium	14.2	7.2	1.97	0.2	79.9	19.9	0.0
	Cobalt	1.33	4.02	0.33	1.1	94.0	4.9	0.0
X	Copper	19.9	12.2	1.62	8.2	84.1	7.7	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	5795	2.57	2259	0.3	94.4	5.3	0.0
X	Lead	14.57	6.43	2.26	0.1	95.0	4.9	0.0
X	Manganese	308.2	70.8	4.35	0.9	98.3	0.8	0.0
X	Mercury	0.05	0.03	1.80	0.6	87.7	11.7	0.0
	Nickel	0.25	32.2	<0.1	0.8	84.0	15.1	0.1
X	Selenium	0.30	0.16	1.84	3.3	91.7	5.0	0.0
	Silver	0.002	146	<0.1	48.0	0.0	50.9	1.1
	Thallium	0.003	0.06	<0.1	59.6	0.0	38.1	2.3
X	Vanadium	0.93	0.16	5.93	0.4	87.8	11.7	0.0
	Zinc	47.3	129	0.37	1.8	87.6	10.5	0.0
	HAZARD INDEX			*3560.2*	*0.3*	*94.7*	*5.0*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
TRV = Toxicity Reference Value
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not analyzed

US EPA ARCHIVE DOCUMENT

TABLE 4-164
HAZARD QUOTIENTS FOR MUSKRAT - STATION 20

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00050	9.73	<0.1	0.0	0.0	50	50.1
	Acetone	0.0011	1367	<0.1	0.0	0.0	76	24.0
	cis-1,2-Dichloroethene	0.0014	2504	<0.1	0.0	0.0	96	4.3
	Tetrachloroethene	0.0010	6.09	<0.1	0.0	0.0	95	5.2
	Trichloroethene	0.00480	3.05	<0.1	0.0	0.0	99	1.1
	HAZARD INDEX			*0.0018*	*0.0*	*0.0*	*97*	*2.9*
Semivolatile Organics								
	2-Methylnaphthalene	0.00028	62.5	<0.1	0.0	0.0	11	89.2
	Acenaphthylene	0.00027	58.0	<0.1	0.0	0.0	5	94.7
	Anthracene	0.0003	435	<0.1	0.0	0.0	19	80.6
	Benzo(a)anthracene	0.0021	0.57	<0.1	0.0	0.0	88	12.3
	Benzo(a)pyrene	0.06	0.57	0.11	0.0	96.7	2.8	0.4
	Benzo(b)fluoranthene	0.09	0.57	0.16	0.0	94.0	5.8	0.3
	Benzo(g,h,i)perylene	0.0007	58.0	<0.1	0.0	0.0	66	33.9
	Benzo(k)fluoranthene	0.04	0.57	<0.1	0.0	97.1	2.3	0.7
	Carbazole	NA	58.0	<0.1				
	Chrysene	0.07	0.57	0.12	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0005	0.57	<0.1	0.0	0.0	47	52.6
	Dibenzofuran	NA	58.0	<0.1				
	Fluoranthene	0.05	54.4	<0.1	0.0	90.6	8.9	0.5
	Fluorene	0.0003	54.4	<0.1	0.0	0.0	25	75.0
	Indeno(1,2,3-cd)pyrene	0.11	0.57	0.20	0.0	98.7	1.1	0.2
	Naphthalene	0.000285	60.9	<0.1	0.0	0.0	11	88.5
	N-nitrosodiphenylamine	NA	121	<0.1				
	Phenanthrene	0.08	58.0	<0.1	0.0	98.0	1.7	0.3
	Pyrene	0.05	58.0	<0.1	0.0	92.5	7.0	0.5
	HAZARD INDEX			*0.66*	*0.0*	*95.9*	*3.7*	*0.5*
Pesticides and PCBs								
	4,4'-DDD	0.0006	6.84	<0.1	3.2	88.0	7.9	0.9
	4,4'-DDE	0.0005	0.83	<0.1	5.7	84.3	9.0	1.0
	4,4'-DDT	0.0004	0.64	<0.1	7.6	88.6	2.6	1.2
	Aldrin	NA	0.2	<0.1				
	alpha-Chlordane	0.0016	1.99	<0.1	1.2	94.4	4.3	0.1
	Aroclor 1248	0.0002	0.57	<0.1	39.1	0.0	34	26.5
	Aroclor 1254	0.0006	0.15	<0.1	91.5	0.0	0.6	7.9
	Aroclor 1260	0.0034	0.28	<0.1	19.1	73.9	5.5	1.5
	beta-BHC	0.00001	3.22	<0.1	73.7	0.0	1.8	24.5
	delta-BHC	0.00001	1.29	<0.1	73.7	0.0	1.8	24.5
	Endosulfan I	0.0023	1.21	<0.1	0.8	96.4	2.7	0.1
	Endosulfan Sulfate	0.00003	1.21	<0.1	83.9	0.0	1.1	15.0
	Endrin Aldehyde	0.0003	0.04	<0.1	23.9	73.2	1.1	1.8
	gamma-Chlordane	0.0005	1.99	<0.1	1.6	93.4	4.5	0.5
	HAZARD INDEX			*0.028*	*29.4*	*64.0*	*3.8*	*2.8*
Inorganics								
X	Aluminum	238	41.82	6	0.6	77.7	21.7	0.0
	Antimony	0.012	0.05	0.22	12.6	0.0	86.8	0.6
X	Arsenic	7.96	0.05	145	1.4	94.3	4.2	0.0
X	Barium	4.95	4.33	1.14	5.3	90.3	4.3	0.1
	Beryllium	0.004	0.53	<0.1	4.5	0.0	95.4	0.2
X	Cadmium	0.91	0.78	1.17	0.2	95.6	4.2	0.0
X	Chromium	17.2	7.2	2.38	0.2	79.9	19.9	0.0
	Cobalt	1.68	4.02	0.42	0.9	94.2	4.9	0.0
X	Copper	29.8	12.2	2.44	5.4	86.6	8.0	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1352	2.57	527	1.3	93.4	5.3	0.0
X	Lead	37.15	6.43	5.77	0.0	95.1	4.9	0.0
X	Manganese	211.3	70.8	2.99	1.3	97.9	0.8	0.0
X	Mercury	0.04	0.03	1.60	0.7	87.6	11.7	0.0
	Nickel	0.66	32.2	<0.1	0.3	84.4	15.2	0.0
X	Selenium	0.33	0.16	2.07	3.0	92.0	5.0	0.0
	Silver	0.003	146	<0.1	33.0	0.0	66.2	0.8
	Thallium	0.008	0.06	0.12	26.8	0.0	72.1	1.0
X	Vanadium	1.54	0.16	9.81	0.3	88.0	11.8	0.0
	Zinc	60.3	129	0.47	1.4	88.0	10.6	0.0
	HAZARD INDEX			*708.4*	*1.3*	*93.3*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not analyzed

US EPA ARCHIVE DOCUMENT

TABLE 4-165
HAZARD QUOTIENTS FOR MUSKRAT - STATION 21

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.73	<0.1				
	Acetone	NA	1367	<0.1				
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	60	39.8
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	64	36.5
	Trichloroethene	0.00010	3.05	<0.1	0.0	0.0	47	53.1
	HAZARD INDEX			*0.00*	*0.0*	*0.0*	*36*	*63.7*
Semivolatile Organics								
	2-Methylnaphthalene	0.0006	62.5	<0.1	0.0	0.0	57	43.5
	Acenaphthylene	0.0003	58.0	<0.1	0.0	0.0	26	73.9
	Anthracene	0.0012	435	<0.1	0.0	0.0	80	20.4
	Benzo(a)anthracene	0.0012	0.57	<0.1	0.0	0.0	78	21.7
	Benzo(a)pyrene	0.07	0.57	0.13	0.0	96.8	2.8	0.3
	Benzo(b)fluoranthene	0.07	0.57	0.12	0.0	93.9	5.7	0.4
	Benzo(g,h,i)perylene	0.0019	58.0	<0.1	0.0	0.0	87	13.2
	Benzo(k)fluoranthene	0.0037	0.57	<0.1	0.0	91.0	2.1	6.9
	Carbazole	NA	58.0	<0.1				
	Chrysene	0.06	0.57	0.10	0.0	95.7	3.8	0.4
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	69	31.0
	Dibenzofuran	NA	58.0	<0.1				
	Fluoranthene	0.043	54.4	<0.1	0.0	90.5	8.9	0.6
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	69	31.0
	Indeno(1,2,3-cd)pyrene	0.13	0.57	0.24	0.0	98.7	1.1	0.2
	Naphthalene	0.0047	60.9	<0.1	0.0	0.0	95	5.4
	N-nitrosodiphenylamine	NA	121	<0.1				
	Phenanthrene	0.08	58.0	<0.1	0.0	98.0	1.7	0.3
	Pyrene	0.05	58.0	<0.1	0.0	92.4	7.0	0.5
	HAZARD INDEX			*0.60*	*0.0*	*96.1*	*3.3*	*0.5*
Pesticides and PCBs								
	4,4'-DDD	0.0009	6.84	<0.1	2.2	89.2	8.0	0.6
	4,4'-DDE	0.0008	0.83	<0.1	3.7	86.4	9.3	0.6
	4,4'-DDT	0.0004	0.64	<0.1	8.0	88.2	2.6	1.3
	Aldrin	0.00001	0.16	<0.1	67.4	0.0	13.9	18.7
	alpha-Chlordane	0.0027	1.99	<0.1	0.7	94.9	4.3	0.1
	Aroclor 1248	0.0007	0.57	<0.1	10.9	0.0	82	7.3
	Aroclor 1254	0.0006	0.15	<0.1	91.5	0.0	0.6	7.9
	Aroclor 1260	0.0149	0.28	<0.1	4.3	88.7	6.6	0.3
	beta-BHC	0.00001	3.22	<0.1	63.4	0.0	15.6	21.0
	delta-BHC	0.00001	1.29	<0.1	53.0	0.0	29.4	17.6
	Endosulfan I	0.0030	1.21	<0.1	0.6	96.6	2.7	0.1
	Endosulfan Sulfate	0.00004	1.21	<0.1	76.2	0.0	10.1	13.6
	Endrin Aldehyde	0.0015	0.04	<0.1	4.4	93.8	1.4	0.3
	gamma-Chlordane	0.0017	1.99	<0.1	0.5	94.8	4.6	0.1
	HAZARD INDEX			*0.103*	*8.0*	*85.9*	*5.2*	*0.8*
Inorganics								
X	Aluminum	148	41.82	4	1.0	77.4	21.6	0.0
	Antimony	0.006	0.05	0.11	23.8	0.0	75.1	1.1
X	Arsenic	4.97	0.05	90.7	2.3	93.5	4.2	0.0
X	Barium	6.82	4.33	1.58	3.8	91.7	4.4	0.1
	Beryllium	0.002	0.53	<0.1	7.8	0.0	91.9	0.3
X	Cadmium	1.00	0.78	1.28	0.2	95.7	4.2	0.0
X	Chromium	28.2	7.2	3.90	0.1	80.0	19.9	0.0
	Cobalt	1.10	4.02	0.27	1.3	93.8	4.9	0.0
X	Copper	14.3	12.2	1.17	11.3	81.2	7.5	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	983	2.57	383	1.8	93.0	5.2	0.0
X	Lead	25.42	6.43	3.95	0.1	95.1	4.9	0.0
	Manganese	62.1	70.8	0.88	4.3	94.9	0.8	0.1
X	Mercury	0.19	0.03	7.41	0.1	88.1	11.7	0.0
	Nickel	0.50	32.2	<0.1	0.4	84.3	15.2	0.1
	Selenium	0.16	0.16	0.98	6.3	88.9	4.8	0.1
	Silver	0.002	146	<0.1	60.3	0.0	38.4	1.4
	Thallium	0.003	0.06	<0.1	77.2	0.0	19.8	3.0
X	Vanadium	1.07	0.16	6.82	0.4	87.8	11.8	0.0
	Zinc	78.6	129	0.61	1.1	88.3	10.6	0.0
	HAZARD INDEX			*506.5*	*1.8*	*92.7*	*5.5*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not analyzed

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TABLE 4-166
HAZARD QUOTIENTS FOR MUSKRAT - STATION AM

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	82	41.82	1.96	1.9	76.6	21.4	0.0
	Antimony	0.006	0.05	0.12	25.7	0.0	73.4	0.9
X	Arsenic	3.44	0.05	62.66	2.3	93.4	4.2	0.0
	Barium	3.30	4.33	0.76	9.0	86.7	4.1	0.1
	Beryllium	0.002	0.53	<0.1	11.4	0.0	88.3	0.3
	Cadmium	0.223	0.78	0.29	1.5	94.4	4.1	0.0
	Chromium	3.85	7.24	0.53	1.7	78.7	19.6	0.0
	Cobalt	0.97	4.02	0.24	1.7	93.4	4.9	0.0
	Copper	7.34	12.23	0.60	25.3	68.4	6.3	0.0
	Cyanide	0.009	51.90	<0.1	75.0	0.0	22.2	2.8
X	Iron	1040	2.57	405.34	1.0	93.7	5.3	0.0
X	Lead	7.26	6.43	1.13	0.4	94.8	4.8	0.0
X	Manganese	330	70.76	4.66	1.1	98.1	0.8	0.0
X	Mercury	0.038	0.03	1.49	1.1	87.3	11.6	0.0
	Nickel	0.279	32.17	<0.1	1.1	83.7	15.1	0.1
	Selenium	0.062	0.16	0.39	19.0	76.7	4.2	0.1
	Silver	0.001	145.71	<0.1	52.3	0.0	44.2	3.4
	Thallium	0.005	0.06	<0.1	78.0	0.0	20.3	1.7
X	Vanadium	0.539	0.16	3.44	0.9	87.4	11.7	0.0
	Zinc	21.37	128.66	0.17	3.9	85.8	10.3	0.0
	HAZARD INDEX			*483.9*	*1.2*	*93.5*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-167
HAZARD QUOTIENTS FOR MUSKRAT - STATION AS

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	187	41.82	4.46	0.9	77.4	21.7	0.0
	Antimony	0.007	0.05	0.14	18.4	0.0	79.8	1.8
X	Arsenic	3.39	0.05	61.92	1.3	90.6	8.0	0.0
X	Barium	5.69	4.33	1.31	7.3	88.4	4.2	0.1
	Beryllium	0.002	0.53	<0.1	4.8	0.0	95.0	0.2
	Cadmium	0.673	0.78	0.87	0.2	95.6	4.2	0.0
X	Chromium	8.80	7.24	1.22	0.3	79.8	19.9	0.0
	Cobalt	0.97	4.02	0.24	1.2	93.9	4.9	0.0
X	Copper	15.43	12.23	1.26	8.0	84.3	7.7	0.0
	Cyanide	0.014	51.90	<0.1	53.3	0.0	44.9	1.8
X	Iron	1263	2.57	492.51	0.7	94.0	5.3	0.0
X	Lead	27.64	6.43	4.30	0.1	95.0	4.9	0.0
X	Manganese	112	70.76	1.58	2.6	96.5	0.8	0.1
X	Mercury	0.062	0.03	2.39	0.3	88.0	11.7	0.0
	Nickel	0.574	32.17	<0.1	0.5	84.3	15.2	0.0
	Selenium	0.098	0.16	0.61	13.0	82.4	4.5	0.1
	Silver	0.002	145.71	<0.1	33.3	0.0	65.2	1.5
	Thallium	0.005	0.06	<0.1	42.7	0.0	55.4	1.9
X	Vanadium	1.312	0.16	8.37	0.4	87.8	11.7	0.0
	Zinc	48.45	128.66	0.38	1.5	87.9	10.6	0.0
	HAZARD INDEX			*581.7*	*0.8*	*93.3*	*5.9*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-168
HAZARD QUOTIENTS FOR MUSKRAT - STATION BW

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.73	<0.1				
	Acetone	NA	1367	<0.1				
	cis-1,2-Dichloroethene	0.0010	2504	<0.1	0.0	0.0	94	5.7
	Tetrachloroethene	0.0004	6.09	<0.1	0.0	0.0	88	12.2
	Trichloroethene	0.00017	3.05	<0.1	0.0	0.0	71	28.9
	HAZARD INDEX			*0.0002*	*0.0*	*0.0*	*66*	*33.7*
Semivolatile Organics								
	2-Methylnaphthalene	0.00028	62.5	<0.1	0.0	0.0	11	89.2
	Acenaphthylene	0.00030	58.0	<0.1	0.0	0.0	15	85.0
	Anthracene	0.0004	435	<0.1	0.0	0.0	39	61.0
	Benzo(a)anthracene	0.0016	0.57	<0.1	0.0	0.0	84	16.1
	Benzo(a)pyrene	0.08	0.57	0.15	0.0	96.9	2.8	0.3
	Benzo(b)fluoranthene	0.06	0.57	0.11	0.0	93.8	5.7	0.4
	Benzo(g,h,i)perylene	0.0018	58.0	<0.1	0.0	0.0	86	14.4
	Benzo(k)fluoranthene	0.07	0.57	0.13	0.0	97.4	2.3	0.3
	Carbazole	NA	58.0	<0.1				
	Chrysene	0.05	0.57	<0.1	0.0	95.7	3.8	0.5
	Dibenz(a,h)anthracene	0.0010	0.57	<0.1	0.0	0.0	75	25.2
	Dibenzofuran	NA	58.0	<0.1				
	Fluoranthene	0.03	54.4	<0.1	0.0	90.3	8.9	0.8
	Fluorene	0.0004	54.4	<0.1	0.0	0.0	30	69.6
	Indeno(1,2,3-cd)pyrene	0.16	0.57	0.28	0.0	98.7	1.1	0.2
	Naphthalene	0.00031	60.9	<0.1	0.0	0.0	19	80.6
	N-nitrosodiphenylamine	NA	120.6	<0.1				
	Phenanthrene	0.08	58.0	<0.1	0.0	98.0	1.7	0.3
	Pyrene	0.03	58.0	<0.1	0.0	92.2	7.0	0.8
	HAZARD INDEX			*0.76*	*0.0*	*96.5*	*3.1*	*0.4*
Pesticides and PCBs								
	4,4'-DDD	0.0005	6.84	<0.1	3.8	87.3	7.9	1.0
	4,4'-DDE	0.0001	0.83	<0.1	22.2	66.8	7.2	3.9
	4,4'-DDT	0.0001	0.64	<0.1	22.1	72.3	2.1	3.5
	Aldrin	0.00001	0.16	<0.1	77.0	0.0	1.7	21.3
	alpha-Chlordane	0.0002	1.99	<0.1	12.4	82.4	3.7	1.5
	Aroclor 1248	0.0002	0.57	<0.1	39.1	0.0	34	26.5
	Aroclor 1254	0.0006	0.15	<0.1	91.5	0.0	0.6	7.9
	Aroclor 1260	0.0027	0.28	<0.1	24.2	68.8	5.1	1.9
	beta-BHC	0.00001	3.22	<0.1	73.6	0.0	1.9	24.4
	delta-BHC	0.00001	1.29	<0.1	73.6	0.0	1.9	24.4
	Endosulfan I	0.0000	1.21	<0.1	65.6	24.8	0.7	8.9
	Endosulfan Sulfate	0.00003	1.21	<0.1	83.8	0.0	1.1	15.0
	Endrin Aldehyde	0.0004	0.04	<0.1	18.6	78.8	1.2	1.4
	gamma-Chlordane	0.0001	1.99	<0.1	7.9	85.6	4.2	2.3
	HAZARD INDEX			*0.024*	*34.8*	*58.7*	*3.2*	*3.3*
Inorganics								
X	Aluminum	200	41.82	4.79	0.7	77.6	21.7	0.0
	Antimony	0.054	0.05	1.00	2.7	0.0	97.1	0.1
X	Arsenic	35.87	0.05	654.20	0.3	91.6	8.1	0.0
X	Barium	6.91	4.33	1.60	3.8	91.8	4.4	0.1
	Beryllium	0.003	0.53	<0.1	5.2	0.0	94.6	0.2
	Cadmium	0.597	0.78	0.77	0.3	95.6	4.2	0.0
X	Chromium	17.86	7.24	2.47	0.1	79.9	19.9	0.0
	Cobalt	1.89	4.02	0.47	0.8	94.3	4.9	0.0
X	Copper	26.63	12.23	2.18	6.1	86.0	7.9	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	4933	2.57	1922.90	0.3	94.3	5.3	0.0
X	Lead	29.28	6.43	4.55	0.1	95.1	4.9	0.0
X	Manganese	299	70.76	4.22	0.9	98.3	0.8	0.0
X	Mercury	0.132	0.03	5.13	0.2	88.1	11.7	0.0
	Nickel	0.557	32.17	<0.1	0.4	84.4	15.2	0.1
X	Selenium	0.461	0.16	2.87	2.1	92.8	5.0	0.0
	Silver	0.005	145.71	<0.1	24.0	0.0	75.4	0.5
	Thallium	0.021	0.06	0.35	9.4	0.0	90.2	0.4
X	Vanadium	1.604	0.16	10.23	0.3	88.0	11.8	0.0
	Zinc	46.73	128.66	0.36	1.8	87.6	10.5	0.0
	HAZARD INDEX			*2618.1*	*0.4*	*93.5*	*6.1*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-169
HAZARD QUOTIENTS FOR MUSKRAT - STATION CB-01

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	129	41.82	3.08	1.2	77.2	21.6	0.0
	Antimony	0.005	0.05	<0.1	35.6	0.0	63.1	1.3
X	Arsenic	1.23	0.05	22.35	6.6	89.3	4.0	0.1
	Barium	2.37	4.33	0.55	12.6	83.3	4.0	0.1
	Beryllium	0.003	0.53	<0.1	7.6	0.0	92.2	0.2
	Cadmium	0.294	0.78	0.38	1.1	94.7	4.1	0.0
	Chromium	2.62	7.24	0.36	2.5	78.0	19.4	0.0
	Cobalt	0.30	4.02	<0.1	5.4	89.9	4.7	0.0
X	Copper	12.68	12.23	1.04	14.6	78.2	7.2	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	497	2.57	193.70	2.1	92.7	5.2	0.0
X	Lead	15.34	6.43	2.38	0.2	95.0	4.8	0.0
X	Manganese	100	70.76	1.42	3.6	95.6	0.8	0.1
X	Mercury	0.031	0.03	1.21	1.3	87.0	11.6	0.0
	Nickel	0.144	32.17	<0.1	2.1	82.8	14.9	0.1
X	Selenium	0.181	0.16	1.13	6.5	88.6	4.8	0.0
	Silver	0.001	145.71	<0.1	42.0	0.0	55.2	2.7
	Thallium	0.006	0.06	0.11	60.9	0.0	37.7	1.3
X	Vanadium	1.068	0.16	6.81	0.4	87.8	11.8	0.0
	Zinc	10.04	128.66	<0.1	8.2	81.8	9.8	0.1
	HAZARD INDEX			*234.8*	*2.6*	*91.8*	*5.6*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not Analyzed

US EPA ARCHIVE DOCUMENT

TABLE 4-170
HAZARD QUOTIENTS FOR MUSKRAT - STATION CB-02

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	49	41.82	1.18	3.2	75.6	21.2	0.0
	Antimony	0.005	0.05	<0.1	30.9	0.0	67.9	1.1
X	Arsenic	0.83	0.05	15.20	9.7	86.3	3.9	0.2
X	Barium	4.34	4.33	1.00	6.9	88.8	4.2	0.1
	Beryllium	0.001	0.53	<0.1	22.3	0.0	77.2	0.5
	Cadmium	0.177	0.78	0.23	1.9	94.0	4.1	0.0
	Chromium	1.31	7.24	0.18	5.0	76.0	18.9	0.0
	Cobalt	0.22	4.02	<0.1	7.5	87.9	4.6	0.0
	Copper	3.95	12.23	0.32	47.0	48.5	4.5	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	271	2.57	105.45	3.8	91.1	5.1	0.0
	Lead	5.76	6.43	0.90	0.5	94.7	4.8	0.0
	Manganese	20	70.76	0.28	18.2	80.8	0.7	0.3
	Mercury	0.005	0.03	0.20	8.0	81.0	10.8	0.2
	Nickel	0.130	32.17	<0.1	2.4	82.6	14.9	0.1
	Selenium	0.078	0.16	0.48	15.1	80.4	4.4	0.1
	Silver	0.001	145.71	<0.1	93.9	0.0	0.0	6.1
	Thallium	0.005	0.06	<0.1	78.4	0.0	19.9	1.7
X	Vanadium	0.534	0.16	3.40	0.9	87.4	11.7	0.0
	Zinc	6.29	128.66	<0.1	13.2	77.4	9.3	0.1
	HAZARD INDEX			*129.1*	*4.7*	*89.9*	*5.4*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-171
HAZARD QUOTIENTS FOR MUSKRAT - STATION CB-03

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	101	41.82	2.41	1.6	76.9	21.5	0.0
	Antimony	0.005	0.05	<0.1	31.0	0.0	67.8	1.1
X	Arsenic	7.63	0.05	139.24	1.1	94.7	4.3	0.0
	Barium	2.95	4.33	0.68	10.1	85.7	4.1	0.1
	Beryllium	0.001	0.53	<0.1	13.2	0.0	86.4	0.3
	Cadmium	0.419	0.78	0.54	0.8	95.1	4.1	0.0
	Chromium	5.43	7.24	0.75	1.2	79.1	19.7	0.0
	Cobalt	0.92	4.02	0.23	1.7	93.3	4.9	0.0
	Copper	9.34	12.23	0.76	19.9	73.4	6.7	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1374	2.57	535.61	0.7	94.0	5.3	0.0
X	Lead	9.50	6.43	1.48	0.3	94.8	4.8	0.0
X	Manganese	85	70.76	1.20	4.2	94.9	0.8	0.1
	Mercury	0.025	0.03	0.96	1.7	86.7	11.5	0.0
	Nickel	0.395	32.17	<0.1	0.8	84.0	15.1	0.0
X	Selenium	0.184	0.16	1.15	6.4	88.7	4.8	0.0
	Silver	0.002	145.71	<0.1	31.9	0.0	66.0	2.1
	Thallium	0.006	0.06	<0.1	69.5	0.0	29.0	1.5
X	Vanadium	0.938	0.16	5.99	0.5	87.7	11.7	0.0
	Zinc	25.88	128.66	0.20	3.2	86.4	10.4	0.0
	HAZARD INDEX			*691.4*	*0.9*	*93.9*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-172
HAZARD QUOTIENTS FOR MUSKRAT - STATION CB-04

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	103	41.82	2.46	1.5	76.9	21.5	0.0
	Antimony	0.010	0.05	0.18	16.4	0.0	83.0	0.6
X	Arsenic	3.17	0.05	57.86	2.5	93.2	4.2	0.0
	Barium	3.44	4.33	0.80	8.6	87.1	4.2	0.1
	Beryllium	0.002	0.53	<0.1	11.7	0.0	88.0	0.3
	Cadmium	0.226	0.78	0.29	1.5	94.4	4.1	0.0
	Chromium	2.03	7.24	0.28	3.2	77.4	19.3	0.0
	Cobalt	0.43	4.02	0.11	3.8	91.4	4.8	0.0
	Copper	7.00	12.23	0.57	26.6	67.2	6.2	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1065	2.57	415.07	1.0	93.8	5.3	0.0
X	Lead	10.08	6.43	1.57	0.3	94.9	4.8	0.0
X	Manganese	119	70.76	1.68	3.0	96.2	0.8	0.1
	Mercury	0.015	0.03	0.58	2.8	85.7	11.4	0.1
	Nickel	0.637	32.17	<0.1	0.5	84.3	15.2	0.0
	Selenium	0.150	0.16	0.93	7.9	87.3	4.7	0.1
	Silver	0.004	145.71	<0.1	15.7	0.0	83.3	1.0
	Thallium	0.007	0.06	0.11	59.1	0.0	39.6	1.3
X	Vanadium	1.103	0.16	7.03	0.4	87.8	11.8	0.0
	Zinc	31.33	128.66	0.24	2.6	86.9	10.5	0.0
	HAZARD INDEX			*489.8*	*1.2*	*93.4*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not Analyzed

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TABLE 4-173
HAZARD QUOTIENTS FOR MUSKRAT - STATION CB-06

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	79	41.82	1.88	2.0	76.6	21.4	0.0
	Antimony	0.006	0.05	0.11	28.6	0.0	70.3	1.1
X	Arsenic	2.80	0.05	51.05	2.9	92.9	4.2	0.0
	Barium	2.37	4.33	0.55	12.6	83.3	4.0	0.1
	Beryllium	0.001	0.53	<0.1	23.1	0.0	76.3	0.6
	Cadmium	0.486	0.78	0.63	0.7	95.2	4.1	0.0
	Chromium	3.36	7.24	0.46	2.0	78.5	19.6	0.0
	Cobalt	0.45	4.02	0.11	3.6	91.6	4.8	0.0
	Copper	6.86	12.23	0.56	27.1	66.8	6.1	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	569	2.57	221.72	1.8	93.0	5.2	0.0
X	Lead	6.63	6.43	1.03	0.4	94.7	4.8	0.0
	Manganese	26	70.76	0.37	13.7	85.4	0.7	0.2
	Mercury	0.005	0.03	0.20	8.3	80.7	10.7	0.2
	Nickel	0.289	32.17	<0.1	1.1	83.8	15.1	0.1
	Selenium	0.075	0.16	0.47	15.7	79.9	4.3	0.1
	Silver	0.001	145.71	<0.1	63.0	0.0	32.9	4.1
	Thallium	0.012	0.06	0.19	34.2	0.0	65.1	0.7
X	Vanadium	1.057	0.16	6.74	0.4	87.8	11.7	0.0
	Zinc	31.83	128.66	0.25	2.6	86.9	10.5	0.0
	HAZARD INDEX			*286.3*	*2.1*	*92.5*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not Analyzed

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TABLE 4-174
HAZARD QUOTIENTS FOR MUSKRAT - STATION NRSE

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	73	41.82	1.74	2.0	76.6	21.4	0.1
	Antimony	0.004	0.05	<0.1	40.0	0.0	58.1	0.0
X	Arsenic	4.71	0.05	85.90	2.4	93.4	4.2	0.1
	Barium	2.38	4.33	0.55	11.0	84.8	4.0	0.2
	Beryllium	0.001	0.53	<0.1	13.2	0.0	86.4	0.5
	Cadmium	0.077	0.78	<0.1	2.2	93.7	4.1	0.1
	Chromium	2.22	7.24	0.31	1.2	79.0	19.7	0.1
	Cobalt	0.32	4.02	<0.1	4.6	90.6	4.8	0.0
	Copper	7.25	12.23	0.59	22.4	71.1	6.5	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	872	2.57	339.87	2.0	92.8	5.2	0.0
X	Lead	7.80	6.43	1.21	0.2	94.9	4.8	0.0
	Manganese	50	70.76	0.70	5.3	93.8	0.8	0.1
X	Mercury	0.053	0.03	2.06	0.5	87.8	11.7	0.0
	Nickel	0.168	32.17	<0.1	1.2	83.6	15.1	0.2
	Selenium	0.090	0.16	0.56	11.0	84.4	4.6	0.1
	Silver	0.005	145.71	<0.1	23.6	0.0	75.8	0.5
	Thallium	0.004	0.06	<0.1	47.2	0.0	51.0	1.8
X	Vanadium	0.473	0.16	3.02	0.9	87.4	11.7	0.0
	Zinc	8.35	128.66	<0.1	10.3	79.9	9.6	0.2
	HAZARD INDEX			*436.9*	*2.1*	*92.7*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-175
HAZARD QUOTIENTS FOR MUSKRAT - STATION JY

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Pesticides and PCBs							
	Aroclor 1248	0.0007	0.57	<0.1	25.1	0.0	0	74.9
	Aroclor 1254	0.0018	0.15	<0.1	72.3	0.0	0.0	27.7
	Aroclor 1260	0.0021	0.28	<0.1	69.1	6.9	0.0	24.0
	HAZARD INDEX			*0.021*	*68.5*	*2.5*	*0.0*	*29.0*
	Inorganics							
X	Aluminum	104	41.82	2.49	1.4	77.0	21.6	0.0
	Antimony	0.014	0.05	0.26	10.4	0.0	89.1	0.5
X	Arsenic	4.13	0.05	75.28	2.7	93.0	4.2	0.1
X	Barium	6.78	4.33	1.57	3.9	91.7	4.4	0.1
	Beryllium	0.001	0.53	<0.1	14.1	0.0	85.4	0.5
	Cadmium	0.627	0.78	0.81	0.3	95.6	4.2	0.0
X	Chromium	9.88	7.24	1.36	0.3	79.8	19.9	0.0
	Cobalt	0.61	4.02	0.15	2.4	92.7	4.9	0.0
	Copper	12.13	12.23	0.99	13.4	79.3	7.3	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1267	2.57	493.77	1.4	93.4	5.3	0.0
X	Lead	25.25	6.43	3.93	0.1	95.1	4.9	0.0
X	Manganese	86	70.76	1.22	3.1	96.1	0.8	0.1
	Mercury	0.016	0.03	0.60	1.7	86.6	11.5	0.1
	Nickel	0.796	32.17	<0.1	0.3	84.5	15.2	0.0
	Selenium	0.148	0.16	0.92	6.7	88.5	4.8	0.1
	Silver	0.003	145.71	<0.1	39.8	0.0	59.3	0.9
	Thallium	0.008	0.06	0.13	25.1	0.0	73.9	1.0
X	Vanadium	0.974	0.16	6.22	0.4	87.8	11.8	0.0
	Zinc	40.57	128.66	0.32	2.1	87.3	10.5	0.0
	HAZARD INDEX			*590.0*	*1.6*	*93.1*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not Analyzed

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TABLE 4-176
HAZARD QUOTIENTS FOR MUSKRAT - STATION KFSE

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	54	41.82	1.29	2.9	75.8	21.2	0.0
	Antimony	0.004	0.05	<0.1	44.0	0.0	54.4	1.6
X	Arsenic	1.15	0.05	20.95	7.0	88.9	4.0	0.1
	Barium	2.02	4.33	0.47	14.7	81.2	3.9	0.2
	Beryllium	0.001	0.53	<0.1	22.1	0.0	77.4	0.5
	Cadmium	0.034	0.78	<0.1	9.7	86.4	3.8	0.2
	Chromium	0.86	7.24	0.12	7.6	73.9	18.4	0.1
	Cobalt	0.32	4.02	<0.1	5.0	90.2	4.7	0.0
	Copper	4.05	12.23	0.33	45.9	49.5	4.6	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	536	2.57	209.13	1.9	92.8	5.2	0.0
	Lead	4.78	6.43	0.74	0.6	94.6	4.8	0.0
X	Manganese	87	70.76	1.23	4.1	95.0	0.8	0.1
	Mercury	0.011	0.03	0.41	3.9	84.7	11.3	0.1
	Nickel	0.106	32.17	<0.1	2.9	82.2	14.8	0.2
	Selenium	0.027	0.16	0.17	43.8	53.0	2.9	0.3
	Silver	0.001	145.71	<0.1	39.2	0.0	58.3	2.5
	Thallium	0.006	0.06	0.10	64.9	0.0	33.7	1.4
X	Vanadium	0.375	0.16	2.39	1.3	87.1	11.7	0.0
	Zinc	7.02	128.66	<0.1	11.8	78.7	9.5	0.1
	HAZARD INDEX			*237.6*	*2.5*	*92.2*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.
NA = Not Analyzed

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TABLE 4-177
HAZARD QUOTIENTS FOR MUSKRAT - STATION LP

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	76	41.82	1.81	2.3	76.3	21.4	0.0
	Antimony	0.004	0.05	<0.1	31.4	0.0	65.6	3.0
X	Arsenic	1.99	0.05	36.21	2.3	93.4	4.2	0.0
	Barium	1.97	4.33	0.45	21.2	75.0	3.6	0.2
	Beryllium	0.001	0.53	<0.1	12.2	0.0	87.3	0.5
	Cadmium	0.108	0.78	0.14	1.3	94.6	4.1	0.0
	Chromium	0.64	7.24	<0.1	4.1	76.7	19.1	0.0
	Cobalt	0.33	4.02	<0.1	3.6	91.5	4.8	0.0
	Copper	6.44	12.23	0.53	19.1	74.1	6.8	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	469	2.57	182.76	1.8	93.0	5.2	0.0
	Lead	4.02	6.43	0.63	0.8	94.4	4.8	0.0
	Manganese	52	70.76	0.74	5.6	93.5	0.8	0.1
	Mercury	0.009	0.03	0.37	2.1	86.2	11.5	0.2
	Nickel	0.152	32.17	<0.1	1.9	83.0	15.0	0.1
	Selenium	0.049	0.16	0.31	26.0	70.1	3.8	0.2
	Silver	0.001	145.71	<0.1	64.6	0.0	32.5	3.0
	Thallium	0.006	0.06	<0.1	33.8	0.0	64.7	1.5
X	Vanadium	0.333	0.16	2.12	1.8	86.6	11.6	0.1
	Zinc	15.98	128.66	0.12	4.5	85.3	10.3	0.0
	HAZARD INDEX			*226.5*	*2.0*	*92.6*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-178
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-28

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	179	41.82	4.28	0.8	77.5	21.7	0.0
	Antimony	0.046	0.05	0.85	3.2	0.0	96.6	0.0
X	Arsenic	20.97	0.05	382.41	0.5	95.2	4.3	0.0
X	Barium	5.13	4.33	1.18	5.1	90.5	4.3	0.1
	Beryllium	0.003	0.53	<0.1	6.4	0.0	93.4	0.2
X	Cadmium	0.827	0.78	1.07	0.2	95.6	4.2	0.0
X	Chromium	33.11	7.24	4.58	0.1	80.0	19.9	0.0
	Cobalt	1.40	4.02	0.35	1.0	94.0	4.9	0.0
X	Copper	28.39	12.23	2.32	5.7	86.3	7.9	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	2953	2.57	1151.29	0.6	94.1	5.3	0.0
X	Lead	20.34	6.43	3.16	0.1	95.1	4.9	0.0
X	Manganese	198	70.76	2.80	1.3	97.8	0.8	0.0
X	Mercury	0.081	0.03	3.17	0.3	88.0	11.7	0.0
	Nickel	0.414	32.17	<0.1	0.5	84.3	15.2	0.1
X	Selenium	0.400	0.16	2.49	2.5	92.5	5.0	0.0
	Silver	0.011	145.71	<0.1	10.2	0.0	89.6	0.2
	Thallium	0.003	0.06	<0.1	68.1	0.0	29.2	2.7
X	Vanadium	1.156	0.16	7.38	0.4	87.9	11.8	0.0
	Zinc	55.79	128.66	0.43	1.5	87.9	10.6	0.0
	HAZARD INDEX			*1567.8*	*0.6*	*94.2*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-179
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-29

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	175	41.82	4.20	0.8	77.5	21.7	0.0
	Antimony	0.011	0.05	0.20	13.8	0.0	85.5	0.7
X	Arsenic	20.81	0.05	379.54	0.5	95.2	4.3	0.0
	Barium	3.91	4.33	0.90	6.7	88.9	4.2	0.1
	Beryllium	0.002	0.53	<0.1	7.2	0.0	92.6	0.3
	Cadmium	0.751	0.78	0.97	0.2	95.6	4.2	0.0
X	Chromium	36.75	7.24	5.08	0.1	80.0	19.9	0.0
	Cobalt	1.64	4.02	0.41	0.9	94.2	4.9	0.0
X	Copper	28.87	12.23	2.36	5.6	86.4	7.9	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	3252	2.57	1267.91	0.5	94.2	5.3	0.0
X	Lead	24.18	6.43	3.76	0.1	95.1	4.9	0.0
X	Manganese	228	70.76	3.22	1.2	98.0	0.8	0.0
X	Mercury	0.172	0.03	6.68	0.2	88.1	11.7	0.0
	Nickel	0.467	32.17	<0.1	0.4	84.3	15.2	0.1
X	Selenium	0.360	0.16	2.24	2.7	92.2	5.0	0.0
	Silver	0.004	145.71	<0.1	25.7	0.0	73.7	0.6
	Thallium	0.023	0.06	0.38	8.7	0.0	90.9	0.3
X	Vanadium	1.327	0.16	8.46	0.3	87.9	11.8	0.0
	Zinc	63.03	128.66	0.49	1.4	88.0	10.6	0.0
	HAZARD INDEX			*1686.8*	*0.5*	*94.2*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-180
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-30

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	155	41.82	3.70	1.0	77.3	21.6	0.0
	Antimony	0.017	0.05	0.31	9.7	0.0	90.0	0.4
X	Arsenic	16.34	0.05	297.98	0.5	95.2	4.3	0.0
	Barium	3.87	4.33	0.89	7.7	88.0	4.2	0.1
	Beryllium	0.002	0.53	<0.1	8.2	0.0	91.6	0.2
	Cadmium	0.370	0.78	0.48	0.9	95.0	4.1	0.0
X	Chromium	27.88	7.24	3.85	0.2	79.9	19.9	0.0
	Cobalt	0.92	4.02	0.23	1.7	93.3	4.9	0.0
X	Copper	40.27	12.23	3.29	4.6	87.4	8.0	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1696	2.57	661.31	0.6	94.1	5.3	0.0
X	Lead	21.21	6.43	3.30	0.1	95.0	4.9	0.0
X	Manganese	240	70.76	3.39	1.5	97.7	0.8	0.0
X	Mercury	0.498	0.03	19.36	0.1	88.2	11.7	0.0
	Nickel	0.319	32.17	<0.1	1.0	83.9	15.1	0.1
X	Selenium	0.198	0.16	1.23	6.0	89.2	4.8	0.0
	Silver	0.002	145.71	<0.1	24.0	0.0	74.5	1.6
	Thallium	0.012	0.06	0.21	31.9	0.0	67.4	0.7
X	Vanadium	0.853	0.16	5.44	0.6	87.7	11.7	0.0
	Zinc	26.71	128.66	0.21	3.1	86.5	10.4	0.0
	HAZARD INDEX			*1005.2*	*0.6*	*94.1*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-181
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-31

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	119	41.82	2.84	1.3	77.1	21.6	0.0
	Antimony	0.002	0.05	<0.1	70.3	0.0	27.1	2.6
X	Arsenic	0.54	0.05	9.89	14.9	81.2	3.7	0.2
X	Barium	4.99	4.33	1.15	6.0	89.7	4.3	0.1
	Beryllium	0.001	0.53	<0.1	13.2	0.0	86.5	0.3
	Cadmium	0.238	0.78	0.31	1.4	94.5	4.1	0.0
	Chromium	2.24	7.24	0.31	2.9	77.7	19.4	0.0
	Cobalt	0.59	4.02	0.15	2.7	92.4	4.8	0.0
	Copper	5.01	12.23	0.41	37.1	57.6	5.3	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1066	2.57	415.63	1.0	93.8	5.3	0.0
X	Lead	13.39	6.43	2.08	0.2	94.9	4.8	0.0
X	Manganese	174	70.76	2.46	2.1	97.1	0.8	0.0
X	Mercury	0.029	0.03	1.11	1.5	86.9	11.6	0.0
	Nickel	0.401	32.17	<0.1	0.8	84.0	15.1	0.0
	Selenium	0.133	0.16	0.83	8.8	86.4	4.7	0.1
	Silver	0.001	145.71	<0.1	43.0	0.0	54.2	2.8
	Thallium	0.004	0.06	<0.1	97.9	0.0	0.0	2.1
X	Vanadium	0.917	0.16	5.85	0.5	87.7	11.7	0.0
	Zinc	10.95	128.66	<0.1	7.6	82.5	9.9	0.1
	HAZARD INDEX			*443.2*	*1.4*	*93.2*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-182
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-32

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.7	<0.1				
	Acetone	0.0009	1367	<0.1	0.0	0.0	71	29.3
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	NA	6.1	<0.1				
	Trichloroethene	NA	3.0	<0.1				
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*1*	*99.5*
Semivolatile Organics								
	2-Methylnaphthalene	0.00053	62.5	<0.1	0.0	0.0	53	47.3
	Acenaphthylene	0.00053	58.0	<0.1	0.0	0.0	53	47.3
	Anthracene	0.0005	435	<0.1	0.0	0.0	53	47.3
	Benzo(a)anthracene	0.0012	0.57	<0.1	0.0	0.0	79	21.2
	Benzo(a)pyrene	0.04	0.57	<0.1	0.0	96.5	2.8	0.6
	Benzo(b)fluoranthene	0.03	0.57	<0.1	0.0	93.5	5.7	0.8
	Benzo(g,h,i)perylene	0.0008	58.0	<0.1	0.0	0.0	68	31.9
	Benzo(k)fluoranthene	0.02	0.57	<0.1	0.0	96.4	2.3	1.4
	Carbazole	0.00028	58.0	<0.1	0.0	0.0	100.0	0.0
	Chrysene	0.03	0.57	<0.1	0.0	95.3	3.8	0.9
	Dibenz(a,h)anthracene	0.0005	0.57	<0.1	0.0	0.0	53	47.3
	Dibenzofuran	0.00053	58.0	<0.1	0.0	0.0	53	47.3
	Fluoranthene	0.03	54.4	<0.1	0.0	90.2	8.9	1.0
	Fluorene	0.0005	54.4	<0.1	0.0	0.0	53	47.3
	Indeno(1,2,3-cd)pyrene	0.05	0.57	<0.1	0.0	98.4	1.1	0.6
	Naphthalene	0.00053	60.9	<0.1	0.0	0.0	53	47.3
	N-nitrosodiphenylamine	0.00053	121	<0.1	0.0	0.0	53	47.3
	Phenanthrene	0.06	58.0	<0.1	0.0	97.9	1.7	0.4
	Pyrene	0.03	58.0	<0.1	0.0	92.1	7.0	0.9
	HAZARD INDEX			*0.30*	*0.0*	*95.2*	*3.8*	*1.1*
Pesticides and PCBs								
	4,4'-DDD	0.0001	6.84	<0.1	84.3	10.5	0.9	4.3
	4,4'-DDE	0.0003	0.83	<0.1	90.9	6.5	0.7	1.9
	4,4'-DDT	0.0001	0.64	<0.1	41.5	50.3	1.5	6.7
	Aldrin	0.00001	0.16	<0.1	72.4	0.0	4.9	22.7
	alpha-Chlordane	0.0000	1.99	<0.1	54.9	35.9	1.6	7.5
	Aroclor 1248	0.0001	0.57	<0.1	54.8	0.0	8	37.1
	Aroclor 1254	0.0007	0.15	<0.1	91.4	0.0	1.5	7.0
	Aroclor 1260	0.0014	0.28	<0.1	85.4	10.3	0.8	3.5
	beta-BHC	0.00001	3.22	<0.1	70.8	0.0	5.2	24.0
	delta-BHC	0.00001	1.29	<0.1	70.8	0.0	5.2	24.0
	Endosulfan I	0.0000	1.21	<0.1	24.9	64.9	1.8	8.4
	Endosulfan Sulfate	0.00003	1.21	<0.1	77.6	0.0	4.0	18.4
	Endrin Aldehyde	0.0002	0.04	<0.1	52.8	43.5	0.7	3.0
	gamma-Chlordane	0.0000	1.99	<0.1	34.1	51.9	2.5	11.5
	HAZARD INDEX			*0.015*	*77.4*	*16.3*	*1.1*	*5.2*
Inorganics								
X	Aluminum	87	41.82	2.08	1.8	76.7	21.5	0.0
	Antimony	0.008	0.05	0.15	19.7	0.0	79.6	0.7
X	Arsenic	7.07	0.05	128.91	1.1	94.6	4.3	0.0
	Barium	3.92	4.33	0.90	7.6	88.1	4.2	0.1
	Beryllium	0.001	0.53	<0.1	13.4	0.0	86.3	0.3
	Cadmium	0.286	0.78	0.37	1.2	94.7	4.1	0.0
	Chromium	6.29	7.24	0.87	1.0	79.2	19.7	0.0
	Cobalt	1.05	4.02	0.26	1.5	93.6	4.9	0.0
	Copper	10.31	12.23	0.84	18.0	75.1	6.9	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1393	2.57	542.97	0.7	94.0	5.3	0.0
X	Lead	10.43	6.43	1.62	0.3	94.9	4.8	0.0
X	Manganese	223	70.76	3.15	1.6	97.6	0.8	0.0
X	Mercury	0.055	0.03	2.12	0.8	87.6	11.6	0.0
	Nickel	0.281	32.17	<0.1	1.1	83.8	15.1	0.1
	Selenium	0.134	0.16	0.83	8.8	86.4	4.7	0.1
	Silver	0.001	145.71	<0.1	51.6	0.0	45.0	3.4
	Thallium	0.005	0.06	<0.1	81.0	0.0	17.2	1.8
X	Vanadium	0.630	0.16	4.02	0.7	87.5	11.7	0.0
	Zinc	26.90	128.66	0.21	3.1	86.5	10.4	0.0
	HAZARD INDEX			*689.4*	*0.9*	*93.9*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC wass not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-183
HAZARD QUOTIENTS FOR MUSKRAT - STATION TT-33

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.7	<0.1				
	Acetone	0.0007	1367	<0.1	0.0	0.0	65	35.0
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	NA	6.1	<0.1				
	Trichloroethene	NA	3.0	<0.1				
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*0*	*99.6*
Semivolatile Organics								
	2-Methylnaphthalene	0.00040	62.5	<0.1	0.0	0.0	38	62.4
	Acenaphthylene	0.00040	58.0	<0.1	0.0	0.0	38	62.4
	Anthracene	0.0004	435	<0.1	0.0	0.0	38	62.4
	Benzo(a)anthracene	0.0005	0.57	<0.1	0.0	0.0	51	49.5
	Benzo(a)pyrene	0.01	0.57	<0.1	0.0	95.1	2.8	2.1
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.0	5.6	2.3
	Benzo(g,h,i)perylene	0.0004	58.0	<0.1	0.0	0.0	36	64.2
	Benzo(k)fluoranthene	0.010	0.57	<0.1	0.0	95.3	2.2	2.4
	Carbazole	0.00015	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.01	0.57	<0.1	0.0	93.7	3.7	2.5
	Dibenz(a,h)anthracene	0.0004	0.57	<0.1	0.0	0.0	38	62.4
	Dibenzofuran	0.00040	58.0	<0.1	0.0	0.0	38	62.4
	Fluoranthene	0.01	54.4	<0.1	0.0	88.1	8.7	3.2
	Fluorene	0.0004	54.4	<0.1	0.0	0.0	38	62.4
	Indeno(1,2,3-cd)pyrene	0.01	0.57	<0.1	0.0	97.0	1.1	1.9
	Naphthalene	0.00040	60.9	<0.1	0.0	0.0	38	62.4
	N-nitrosodiphenylamine	0.00040	121	<0.1	0.0	0.0	38	62.4
	Phenanthrene	0.02	58.0	<0.1	0.0	96.9	1.7	1.4
	Pyrene	0.01	58.0	<0.1	0.0	90.4	6.9	2.7
	HAZARD INDEX			*0.10*	*0.0*	*93.2*	*3.7*	*3.1*
Pesticides and PCBs								
	4,4'-DDD	0.0001	6.84	<0.1	71.6	22.7	2.0	3.7
	4,4'-DDE	0.0003	0.83	<0.1	83.8	13.0	1.4	1.8
	4,4'-DDT	0.0001	0.64	<0.1	38.2	54.1	1.6	6.1
	Aldrin	0.00001	0.16	<0.1	71.9	0.0	5.5	22.5
	alpha-Chlordane	0.0000	1.99	<0.1	52.4	38.7	1.8	7.2
	Aroclor 1248	0.0001	0.57	<0.1	54.1	0.0	9	36.6
	Aroclor 1254	0.0007	0.15	<0.1	91.2	0.0	1.8	7.0
	Aroclor 1260	0.0015	0.28	<0.1	83.8	11.8	0.9	3.5
	beta-BHC	0.00001	3.22	<0.1	70.3	0.0	5.9	23.8
	delta-BHC	0.00001	1.29	<0.1	70.3	0.0	5.9	23.8
	Endosulfan I	0.0000	1.21	<0.1	22.9	67.4	1.9	7.8
	Endosulfan Sulfate	0.00003	1.21	<0.1	77.1	0.0	4.7	18.2
	Endrin Aldehyde	0.0002	0.04	<0.1	49.1	47.4	0.7	2.8
	gamma-Chlordane	0.0000	1.99	<0.1	31.9	54.7	2.7	10.8
	HAZARD INDEX			*0.016*	*75.0*	*18.6*	*1.3*	*5.0*
Inorganics								
X	Aluminum	105	41.82	2.50	1.5	77.0	21.5	0.0
	Antimony	0.015	0.05	0.28	10.9	0.0	88.7	0.4
X	Arsenic	6.76	0.05	123.32	1.2	94.5	4.3	0.0
	Barium	3.49	4.33	0.81	8.5	87.2	4.2	0.1
	Beryllium	0.002	0.53	<0.1	12.7	0.0	87.0	0.3
	Cadmium	0.316	0.78	0.41	1.0	94.8	4.1	0.0
X	Chromium	11.66	7.24	1.61	0.6	79.6	19.8	0.0
	Cobalt	0.97	4.02	0.24	1.7	93.4	4.9	0.0
X	Copper	13.19	12.23	1.08	14.1	78.7	7.2	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	1351	2.57	526.68	0.8	93.9	5.3	0.0
X	Lead	9.57	6.43	1.49	0.3	94.9	4.8	0.0
X	Manganese	173	70.76	2.45	2.1	97.1	0.8	0.0
X	Mercury	0.063	0.03	2.46	0.7	87.7	11.7	0.0
	Nickel	0.231	32.17	<0.1	1.3	83.5	15.1	0.1
	Selenium	0.149	0.16	0.92	7.9	87.3	4.7	0.1
	Silver	0.004	145.71	<0.1	14.3	0.0	84.8	0.9
	Thallium	0.005	0.06	<0.1	79.8	0.0	18.5	1.7
X	Vanadium	0.600	0.16	3.83	0.8	87.5	11.7	0.0
	Zinc	21.35	128.66	0.17	3.9	85.8	10.3	0.0
	HAZARD INDEX			*668.3*	*0.9*	*93.8*	*5.3*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-184
HAZARD QUOTIENTS FOR MUSKRAT - STATION UF

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	239	41.82	5.71	0.3	77.9	21.8	0.0
	Antimony	NA	0.05	<0.1				
X	Arsenic	3.44	0.05	62.82	0.2	95.5	4.3	0.0
X	Barium	9.37	4.33	2.16	0.6	94.8	4.5	0.0
	Beryllium	0.003	0.53	<0.1	6.0	0.0	93.9	0.1
	Cadmium	0.660	0.78	0.85	0.3	95.6	4.2	0.0
	Chromium	5.49	7.24	0.76	0.1	80.0	19.9	0.0
	Cobalt	1.28	4.02	0.32	0.6	94.4	5.0	0.0
X	Copper	15.76	12.23	1.29	7.7	84.5	7.8	0.0
	Cyanide	0.0092	51.90	<0.1	61.6	0.0	35.6	2.7
X	Iron	2009	2.57	783.09	0.1	94.5	5.3	0.0
X	Lead	35.38	6.43	5.50	0.0	95.1	4.9	0.0
X	Manganese	260	70.76	3.67	0.9	98.3	0.8	0.0
X	Mercury	0.037	0.03	1.45	0.6	87.7	11.7	0.0
	Nickel	0.722	32.17	<0.1	0.2	84.6	15.2	0.0
	Selenium	0.118	0.16	0.73	13.0	82.4	4.5	0.1
	Silver	0.004	145.71	<0.1	49.5	0.0	49.5	1.0
	Thallium	0.004	0.06	<0.1	50.7	0.0	47.1	2.2
X	Vanadium	1.631	0.16	10.40	0.1	88.1	11.8	0.0
	Zinc	51.39	128.66	0.40	1.1	88.3	10.6	0.0
	HAZARD INDEX			*879.3*	*0.2*	*94.4*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-185
HAZARD QUOTIENTS FOR MUSKRAT - STATION WG

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	NA	9.7	<0.1				
	Acetone	NA	1367	<0.1				
	cis-1,2-Dichloroethene	0.0003	2504	<0.1	0.0	0.0	77	23.5
	Tetrachloroethene	0.0003	6.09	<0.1	0.0	0.0	85	15.4
	Trichloroethene	0.00015	3.05	<0.1	0.0	0.0	66	33.9
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*60*	*39.6*
	Semivolatile Organics							
	2-Methylnaphthalene	0.00026	62.5	<0.1	0.0	0.0	3	97.3
	Acenaphthylene	0.00025	58.0	<0.1	0.0	0.0	1	99.1
	Anthracene	0.0003	435	<0.1	0.0	0.0	14	85.7
	Benzo(a)anthracene	0.0006	0.57	<0.1	0.0	0.0	55	45.3
	Benzo(a)pyrene	0.01	0.57	<0.1	0.0	95.3	2.8	1.9
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.3	5.6	2.1
	Benzo(g,h,i)perylene	0.0005	58.0	<0.1	0.0	0.0	53	47.3
	Benzo(k)fluoranthene	0.02	0.57	<0.1	0.0	96.5	2.3	1.2
	Carbazole	NA	58.0	<0.1				
	Chrysene	0.01	0.57	<0.1	0.0	94.5	3.8	1.8
	Dibenz(a,h)anthracene	0.0004	0.57	<0.1	0.0	0.0	30	70.1
	Dibenzofuran	NA	58.0	<0.1				
	Fluoranthene	0.01	54.4	<0.1	0.0	88.9	8.8	2.3
	Fluorene	0.0003	54.4	<0.1	0.0	0.0	11	88.5
	Indeno(1,2,3-cd)pyrene	0.03	0.57	<0.1	0.0	98.1	1.1	0.8
	Naphthalene	NA	60.9	<0.1				
	N-nitrosodiphenylamine	0.00025	121	<0.1	0.0	0.0	0.0	100.0
	Phenanthrene	0.02	58.0	<0.1	0.0	97.2	1.7	1.1
	Pyrene	0.01	58.0	<0.1	0.0	90.9	6.9	2.2
	HAZARD INDEX			*0.16*	*0.0*	*95.0*	*3.1*	*1.9*
	Pesticides and PCBs							
	4,4'-DDD	0.0003	6.84	<0.1	6.9	83.8	7.5	1.8
	4,4'-DDE	0.0001	0.83	<0.1	26.1	62.7	6.7	4.5
	4,4'-DDT	0.0001	0.64	<0.1	63.1	26.2	0.8	9.9
	Aldrin	0.00001	0.16	<0.1	77.0	0.0	1.6	21.4
	alpha-Chlordane	0.0001	1.99	<0.1	25.3	68.6	3.1	3.0
	Aroclor 1248	0.0002	0.57	<0.1	36.0	0.0	40	24.4
	Aroclor 1254	0.0006	0.15	<0.1	91.5	0.0	0.6	7.9
	Aroclor 1260	0.0011	0.28	<0.1	60.3	32.5	2.4	4.7
	beta-BHC	0.00001	3.22	<0.1	73.7	0.0	1.8	24.5
	delta-BHC	0.00001	1.29	<0.1	73.7	0.0	1.8	24.5
	Endosulfan I	0.0001	1.21	<0.1	31.8	62.1	1.8	4.3
	Endosulfan Sulfate	0.00003	1.21	<0.1	83.8	0.0	1.1	15.0
	Endrin Aldehyde	0.0001	0.04	<0.1	68.0	26.4	0.4	5.2
	gamma-Chlordane	0.0000	1.99	<0.1	19.2	71.8	3.5	5.5
	HAZARD INDEX			*0.011*	*72.3*	*18.3*	*2.5*	*6.9*
	Inorganics							
X	Aluminum	149	41.82	3.56	1.0	77.4	21.6	0.0
	Antimony	0.016	0.05	0.29	9.5	0.0	90.0	0.4
X	Arsenic	3.89	0.05	71.03	2.9	92.9	4.2	0.1
	Barium	4.31	4.33	0.99	6.1	89.5	4.3	0.1
	Beryllium	0.003	0.53	<0.1	5.9	0.0	93.9	0.2
	Cadmium	0.295	0.78	0.38	0.6	95.3	4.1	0.0
	Chromium	6.62	7.24	0.91	0.4	79.7	19.9	0.0
	Cobalt	0.75	4.02	0.19	1.9	93.2	4.9	0.0
X	Copper	15.06	12.23	1.23	10.8	81.7	7.5	0.0
	Cyanide	0.010	51.90	<0.1	77.7	0.0	19.9	2.5
X	Iron	918	2.57	358.05	1.9	92.9	5.2	0.0
X	Lead	20.69	6.43	3.22	0.1	95.1	4.9	0.0
X	Manganese	204	70.76	2.88	1.3	97.9	0.8	0.0
X	Mercury	0.028	0.03	1.07	1.0	87.3	11.6	0.1
	Nickel	0.437	32.17	<0.1	0.5	84.3	15.2	0.1
X	Selenium	0.176	0.16	1.10	5.6	89.5	4.9	0.0
	Silver	0.002	145.71	<0.1	54.6	0.0	44.2	1.2
	Thallium	0.003	0.06	<0.1	68.6	0.0	28.7	2.7
X	Vanadium	1.075	0.16	6.86	0.4	87.8	11.8	0.0
	Zinc	19.78	128.66	0.15	4.3	85.3	10.3	0.1
	HAZARD INDEX			*452.0*	*2.0*	*92.6*	*5.4*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-186
HAZARD QUOTIENTS FOR MUSKRAT - STATION WH

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.7	<0.1				
	Acetone	0.0066	1367	<0.1	0.0	0.0	96	3.8
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	NA	6.1	<0.1				
	Trichloroethene	NA	3.0	<0.1				
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*8*	*91.7*
Semivolatile Organics								
	2-Methylnaphthalene	0.00096	62.5	<0.1	0.0	0.0	74	26.4
	Acenaphthylene	0.00096	58.0	<0.1	0.0	0.0	74	26.4
	Anthracene	0.0010	435	<0.1	0.0	0.0	74	26.4
	Benzo(a)anthracene	0.0010	0.57	<0.1	0.0	0.0	74	26.4
	Benzo(a)pyrene	NA	0.6	<0.1				
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.3	5.6	2.0
	Benzo(g,h,i)perylene	0.0010	58.0	<0.1	0.0	0.0	74	26.4
	Benzo(k)fluoranthene	0.07	0.57	0.12	0.0	97.4	2.3	0.4
	Carbazole	0.00070	58.0	<0.1	0.0	0.0	100.0	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.9	3.8	1.4
	Dibenz(a,h)anthracene	0.0010	0.57	<0.1	0.0	0.0	74	26.4
	Dibenzofuran	0.00096	58.0	<0.1	0.0	0.0	74	26.4
	Fluoranthene	0.01	54.4	<0.1	0.0	88.2	8.7	3.1
	Fluorene	0.0010	54.4	<0.1	0.0	0.0	74	26.4
	Indeno(1,2,3-cd)pyrene	0.06	0.57	0.11	0.0	98.5	1.1	0.4
	Naphthalene	0.000955	60.9	<0.1	0.0	0.0	74	26.4
	N-nitrosodiphenylamine	0.00096	121	<0.1	0.0	0.0	74	26.4
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.6
	Pyrene	0.01	58.0	<0.1	0.0	90.6	6.9	2.5
	HAZARD INDEX			*0.29*	*0.0*	*95.8*	*3.1*	*1.1*
Pesticides and PCBs								
	4,4'-DDD	0.0001	6.84	<0.1	20.5	67.9	6.1	5.4
	4,4'-DDE	0.0001	0.83	<0.1	31.2	57.3	6.1	5.4
	4,4'-DDT	0.0002	0.64	<0.1	13.3	82.2	2.4	2.1
	Aldrin	0.00001	0.16	<0.1	62.5	0.0	20.1	17.3
	alpha-Chlordane	0.0001	1.99	<0.1	21.2	73.0	3.3	2.5
	Aroclor 1248	0.0002	0.57	<0.1	40.9	0.0	31	27.7
	Aroclor 1254	0.0007	0.15	<0.1	84.4	0.0	8.3	7.3
	Aroclor 1260	0.0015	0.28	<0.1	42.2	50.7	3.8	3.3
	beta-BHC	0.00001	3.22	<0.1	58.3	0.0	22.4	19.3
	delta-BHC	0.00001	1.29	<0.1	58.3	0.0	22.4	19.3
	Endosulfan I	0.0001	1.21	<0.1	14.6	81.1	2.3	2.0
	Endosulfan Sulfate	0.00004	1.21	<0.1	72.3	0.0	14.7	12.9
	Endrin Aldehyde	0.0005	0.04	<0.1	14.4	83.2	1.3	1.1
	gamma-Chlordane	0.0001	1.99	<0.1	10.4	82.6	4.0	3.0
	HAZARD INDEX			*0.023*	*36.4*	*56.2*	*3.9*	*3.5*
Inorganics								
X	Aluminum	116	41.82	2.78	1.2	77.2	21.6	0.0
	Antimony	0.052	0.05	0.96	2.8	0.0	97.0	0.1
X	Arsenic	3.28	0.05	59.77	3.4	92.3	4.2	0.1
X	Barium	4.45	4.33	1.03	5.9	89.7	4.3	0.1
	Beryllium	0.002	0.53	<0.1	7.6	0.0	92.1	0.3
	Cadmium	0.332	0.78	0.43	0.5	95.3	4.1	0.0
	Chromium	4.10	7.24	0.57	0.7	79.5	19.8	0.1
	Cobalt	0.59	4.02	0.15	2.5	92.7	4.9	0.0
	Copper	8.52	12.23	0.70	19.0	74.1	6.8	0.0
	Cyanide	0.010	51.90	<0.1	83.4	0.0	13.9	2.6
X	Iron	1105	2.57	430.73	1.6	93.2	5.2	0.0
X	Lead	73.12	6.43	11.37	0.0	95.1	4.9	0.0
X	Manganese	74	70.76	1.05	3.6	95.6	0.8	0.1
	Mercury	0.011	0.03	0.43	2.4	86.0	11.4	0.2
	Nickel	0.368	32.17	<0.1	0.5	84.2	15.2	0.1
	Selenium	0.134	0.16	0.83	7.3	87.8	4.8	0.1
	Silver	0.002	145.71	<0.1	63.1	0.0	35.4	1.4
	Thallium	0.003	0.06	<0.1	59.1	0.0	38.6	2.3
X	Vanadium	1.505	0.16	9.60	0.3	87.9	11.8	0.0
	Zinc	22.21	128.66	0.17	3.9	85.8	10.3	0.1
	HAZARD INDEX			*520.6*	*1.8*	*92.7*	*5.5*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-187
HAZARD QUOTIENTS FOR MUSKRAT - STATION WS

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Inorganics							
X	Aluminum	93	41.82	2.21	1.5	76.9	21.5	0.0
	Antimony	0.011	0.05	0.20	13.7	0.0	85.6	0.6
X	Arsenic	4.77	0.05	86.97	2.3	93.4	4.2	0.1
X	Barium	6.40	4.33	1.48	4.1	91.5	4.4	0.1
	Beryllium	0.001	0.53	<0.1	12.6	0.0	86.9	0.5
	Cadmium	0.457	0.78	0.59	0.4	95.5	4.1	0.0
	Chromium	5.95	7.24	0.82	0.4	79.7	19.8	0.0
	Cobalt	0.91	4.02	0.23	1.6	93.5	4.9	0.0
	Copper	10.15	12.23	0.83	16.0	76.9	7.1	0.0
	Cyanide	0.017	51.90	<0.1	47.8	0.0	50.7	1.5
X	Iron	1327	2.57	517.29	1.3	93.4	5.3	0.0
X	Lead	14.23	6.43	2.21	0.1	95.0	4.9	0.0
X	Manganese	299	70.76	4.23	0.9	98.3	0.8	0.0
	Mercury	0.020	0.03	0.77	1.4	87.0	11.6	0.1
	Nickel	0.465	32.17	<0.1	0.4	84.3	15.2	0.1
	Selenium	0.104	0.16	0.65	9.4	85.8	4.7	0.1
	Silver	0.002	145.71	<0.1	67.8	0.0	30.6	1.6
	Thallium	0.004	0.06	<0.1	52.1	0.0	45.9	2.0
X	Vanadium	0.746	0.16	4.76	0.6	87.7	11.7	0.0
	Zinc	34.51	128.66	0.27	2.5	87.0	10.5	0.0
	HAZARD INDEX			*623.6*	*1.5*	*93.3*	*5.2*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-188
HAZARD QUOTIENTS FOR MUSKRAT - STATION WW

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	NA	9.7	<0.1				
	Acetone	0.0012	1367	<0.1	0.0	0.0	79	20.8
	cis-1,2-Dichloroethene	NA	2504	<0.1				
	Tetrachloroethene	NA	6.1	<0.1				
	Trichloroethene	NA	3.0	<0.1				
	HAZARD INDEX			*0.0001*	*0.0*	*0.0*	*1*	*98.6*
Semivolatile Organics								
	2-Methylnaphthalene	0.00097	62.5	<0.1	0.0	0.0	74	26.1
	Acenaphthylene	0.00097	58.0	<0.1	0.0	0.0	74	26.1
	Anthracene	0.0010	435	<0.1	0.0	0.0	74	26.1
	Benzo(a)anthracene	0.0010	0.57	<0.1	0.0	0.0	74	26.1
	Benzo(a)pyrene	NA	0.6	<0.1				
	Benzo(b)fluoranthene	0.01	0.57	<0.1	0.0	92.5	5.7	1.8
	Benzo(g,h,i)perylene	0.0010	58.0	<0.1	0.0	0.0	74	26.1
	Benzo(k)fluoranthene	0.06	0.57	0.11	0.0	97.3	2.3	0.4
	Carbazole	0.00071	58.0	<0.1	0.0	0.0	100.0	0.0
	Chrysene	0.02	0.57	<0.1	0.0	94.9	3.8	1.4
	Dibenz(a,h)anthracene	0.0010	0.57	<0.1	0.0	0.0	74	26.1
	Dibenzofuran	0.00097	58.0	<0.1	0.0	0.0	74	26.1
	Fluoranthene	0.01	54.4	<0.1	0.0	89.3	8.8	1.9
	Fluorene	0.0010	54.4	<0.1	0.0	0.0	74	26.1
	Indeno(1,2,3-cd)pyrene	0.07	0.57	0.12	0.0	98.5	1.1	0.4
	Naphthalene	0.000967	60.9	<0.1	0.0	0.0	74	26.1
	N-nitrosodiphenylamine	0.00097	121	<0.1	0.0	0.0	74	26.1
	Phenanthrene	0.04	58.0	<0.1	0.0	97.7	1.7	0.6
	Pyrene	0.02	58.0	<0.1	0.0	91.5	7.0	1.6
	HAZARD INDEX			*0.29*	*0.0*	*95.8*	*3.1*	*1.1*
Pesticides and PCBs								
	4,4'-DDD	0.0001	6.84	<0.1	20.2	68.3	6.2	5.3
	4,4'-DDE	0.0001	0.83	<0.1	34.3	54.0	5.8	5.9
	4,4'-DDT	0.0002	0.64	<0.1	13.1	82.5	2.4	2.1
	Aldrin	0.00001	0.16	<0.1	62.5	0.0	20.1	17.3
	alpha-Chlordane	0.0001	1.99	<0.1	21.2	73.0	3.3	2.5
	Aroclor 1248	0.0002	0.57	<0.1	40.6	0.0	32	27.5
	Aroclor 1254	0.0007	0.15	<0.1	84.2	0.0	8.5	7.3
	Aroclor 1260	0.0015	0.28	<0.1	41.8	51.1	3.8	3.3
	beta-BHC	0.00001	3.22	<0.1	58.3	0.0	22.4	19.3
	delta-BHC	0.00001	1.29	<0.1	58.3	0.0	22.4	19.3
	Endosulfan I	0.0001	1.21	<0.1	14.6	81.1	2.3	2.0
	Endosulfan Sulfate	0.00004	1.21	<0.1	72.1	0.0	15.0	12.9
	Endrin Aldehyde	0.0005	0.04	<0.1	14.2	83.5	1.3	1.1
	gamma-Chlordane	0.0001	1.99	<0.1	10.4	82.6	4.0	3.0
	HAZARD INDEX			*0.023*	*36.0*	*56.7*	*4.0*	*3.4*
Inorganics								
X	Aluminum	113	41.82	2.71	1.3	77.1	21.6	0.0
X	Antimony	0.069	0.05	1.27	2.1	0.0	97.8	0.1
X	Arsenic	1.25	0.05	22.72	9.0	86.9	3.9	0.2
X	Barium	23.10	4.33	5.33	1.1	94.3	4.5	0.0
	Beryllium	0.001	0.53	<0.1	19.8	0.0	79.5	0.7
	Cadmium	0.228	0.78	0.29	0.7	95.1	4.1	0.0
X	Chromium	145.26	7.24	20.07	0.0	80.0	19.9	0.0
	Cobalt	0.60	4.02	0.15	2.4	92.7	4.9	0.0
	Copper	11.34	12.23	0.93	14.3	78.5	7.2	0.0
	Cyanide	NA	51.9	<0.1				
X	Iron	543	2.57	211.87	3.2	91.6	5.2	0.0
X	Lead	14.54	6.43	2.26	0.1	95.0	4.9	0.0
X	Manganese	97	70.76	1.37	2.7	96.4	0.8	0.0
	Mercury	0.020	0.03	0.77	1.3	87.0	11.6	0.1
	Nickel	0.362	32.17	<0.1	0.6	84.2	15.2	0.1
X	Selenium	0.207	0.16	1.29	4.8	90.3	4.9	0.0
	Silver	0.002	145.71	<0.1	55.9	0.0	42.8	1.3
	Thallium	0.005	0.06	<0.1	41.0	0.0	57.4	1.6
X	Vanadium	1.360	0.16	8.67	0.3	87.9	11.8	0.0
	Zinc	27.26	128.66	0.21	3.1	86.4	10.4	0.0
	HAZARD INDEX			*280.0*	*3.3*	*89.8*	*6.9*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-189
HAZARD QUOTIENT SUMMARY FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT[1]												
			Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Vanadium
	Pond	Reference	2.6		5.1					269	1.6	1.1			3.9
	Wetland	Reference	2.1		10					267	2.5				7.0
	River	Reference	1.6		9.0					274		2.3			2.9
1	Pond	6	1.4		13					127					1.5
2	Pond	6	1.3		10					170	1.1				2.3
3	Pond	6	1.2		18					190					2.7
4	Pond	6	3.7		44	1.5				516	3.3	2.8			6.5
5	River	5	1.3		6.4					192	1.8	1.4			2.2
6	River	4	2.6		38	1.0				393	2.7	2.8	1.1		5.2
7	River	3	2.6		32					358	2.0	1.4	1.1		5.1
8	River	2	1.4		11					231					1.9
9	River	2	1.1		16					191		1.5			1.5
10	River	1	6.2		438			2.2	4.0	577	4.4	2.2	8.2	2.0	6.7
11	River	1	2.4		147					529	2.1	3.5	1.7		4.2
12	River	1	3.4	1.7	729				1.6	974	2.9	2.1	7.8	2.5	6.5
13	Wetland	1	5.6	1.0	669	1.3			2.4	714	6.5	2.7	5.8	2.9	9.5
14	River	1			33					247					1.5
15	Wetland	1	1.6		86		2.0			301		4.5		1.5	2.5
16	River	2			7.0					100					
18	Wetland	1	3.7		367	1.0		2.8	2.0	962	2.7	3.5	2.9	1.6	5.9
19	Wetland	1	3.0		1275	1.3		2.0	1.6	2259	2.3	4.4	1.8	1.8	5.9
20	Wetland	1	5.7		145	1.1	1.2	2.4	2.4	527	5.8	3.0	1.6	2.1	9.8
21	Wetland	1	3.5		91	1.6	1.3	3.9	1.2	383	4.0		7.4		6.8
AM	River	2	2.0		63					405	1.1	4.7	1.5		3.4
AS	River	3	4.5		62	1.3		1.2	1.3	493	4.3	1.6	2.4		8.4
BW	Wetland	1	4.8		654	1.6		2.5	2.2	1923	4.6	4.2	5.1	2.9	10
CB-01	Wetland	2	3.1		22				1.0	194	2.4	1.4	1.2	1.1	6.8
CB-02	Wetland	2	1.2		15	1.0				105					3.4
CB-03	Wetland	2	2.4		139					536	1.5	1.2		1.1	6.0
CB-04	Wetland	2	2.5		58					415	1.6	1.7			7.0
CB-06	Wetland	2	1.9		51					222	1.0				6.7
JY	Wetland	1	2.5		75	1.6		1.4		494	3.9	1.2			6.2
KFSE	River	2	1.3		21					209		1.2			2.4
LP	River	3	1.8		36					183					2.1
NRSE	Wetland	1	1.7		86					340	1.2		2.1		3.0
TT-28	River	1	4.3		382	1.2	1.1	4.6	2.3	1151	3.2	2.8	3.2	2.5	7.4
TT-29	River	1	4.2		380			5.1	2.4	1268	3.8	3.2	6.7	2.2	8.5
TT-30	River	2	3.7		298			3.9	3.3	661	3.3	3.4	19.4	1.2	5.4
TT-31	Wetland	2	2.8		10	1.2				416	2.1	2.5	1.1		5.9
TT-32	River	2	2.1		129					543	1.6	3.2	2.1		4.0
TT-33	River	2	2.5		123			1.6	1.1	527	1.5	2.5	2.5		3.8
UF	Pond	6	5.7		63	2.2			1.3	783	5.5	3.7	1.4		10
WG	Wetland	1	3.6		71				1.2	358	3.2	2.9	1.1	1.1	6.9
WH	Wetland	1	2.8		60	1.0				431	11	1.0			9.6
WS	River	1	2.2		87	1.5				517	2.2	4.2			4.8
WW	Wetland	1	2.7	1.3	23	5.3		20		212	2.3	1.4		1.3	8.7
% of OU3 stations (non-reference) with HQ>1			95	7	100	40	9	30	37	100	77	74	53	35	98

[1] A blank cell indicates that the HQ was less than 1.0

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TABLE 4-190
HAZARD QUOTIENTS FOR MUSKRAT POND REFERENCE

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00045	9.73	<0.1	0.0	0.0	55	44.9
	Acetone	0.0011	1367	<0.1	0.0	0.0	77	23.0
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	0.0	0.0
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	26	74.3
	Trichloroethene	0.00009	3.05	<0.1	0.0	0.0	23	77.3
	HAZARD INDEX			*0.000091*	*0.0*	*0.0*	*40*	*59.8*
Semivolatile Organics								
	2-Methylnaphthalene	0.0012	62.5	<0.1	0.0	0.0	80	20.3
	Acenaphthylene	0.0012	58.0	<0.1	0.0	0.0	80	20.3
	Anthracene	0.0013	435	<0.1	0.0	0.0	81	18.9
	Benzo(a)anthracene	0.0029	0.57	<0.1	0.0	0.0	91	8.7
	Benzo(a)pyrene	0.09	0.57	0.16	0.0	96.9	2.8	0.3
	Benzo(b)fluoranthene	0.05	0.57	<0.1	0.0	93.8	5.7	0.5
	Benzo(g,h,i)perylene	0.0016	58.0	<0.1	0.0	0.0	84	15.9
	Benzo(k)fluoranthene	0.13	0.57	0.23	0.0	97.5	2.3	0.2
	Carbazole	0.0014	58.0	<0.1	0.0	0.0	82	18.4
	Chrysene	0.07	0.57	0.13	0.0	95.8	3.8	0.4
	Dibenz(a,h)anthracene	0.0011	0.57	<0.1	0.0	0.0	78	22.1
	Dibenzofuran	0.0014	58.0	<0.1	0.0	0.0	82	18.4
	Fluoranthene	0.06	54.4	<0.1	0.0	90.6	8.9	0.4
	Fluorene	0.0013	54.4	<0.1	0.0	0.0	80	19.9
	Indeno(1,2,3-cd)pyrene	0.17	0.57	0.30	0.0	98.8	1.1	0.1
	Naphthalene	0.0012	60.9	<0.1	0.0	0.0	80	20.3
	N-nitrosodiphenylamine	0.0014	121	<0.1	0.0	0.0	82	18.4
	Phenanthrene	0.13	58.0	<0.1	0.0	98.1	1.7	0.2
	Pyrene	0.06	58.0	<0.1	0.0	92.5	7.0	0.5
	HAZARD INDEX			*0.92*	*0.0*	*96.4*	*3.2*	*0.3*
Pesticides and PCBs								
	4,4'-DDD	0.0006	6.84	<0.1	3.7	87.8	7.9	0.6
	4,4'-DDE	0.0005	0.83	<0.1	25.7	66.5	7.1	0.7
	4,4'-DDT	0.0010	0.64	<0.1	1.4	95.5	2.8	0.3
	Aldrin	0.00002	0.16	<0.1	34.6	0.0	57.0	8.4
	alpha-Chlordane	0.0003	1.99	<0.1	2.5	92.7	4.2	0.6
	Aroclor 1248	0.0004	0.57	<0.1	20.6	0.0	70	9.5
	Aroclor 1254	0.0003	0.15	<0.1	21.5	0.0	68.6	9.9
	Aroclor 1260	0.0038	0.28	<0.1	4.0	88.5	6.6	0.9
	beta-BHC	0.00002	3.22	<0.1	34.6	0.0	57.0	8.4
	delta-BHC	0.00002	1.29	<0.1	34.6	0.0	57.0	8.4
	Endosulfan I	0.0011	1.21	<0.1	0.7	96.4	2.7	0.2
	Endosulfan Sulfate	0.00004	1.21	<0.1	35.8	0.0	55.6	8.6
	Endrin Aldehyde	0.0019	0.04	<0.1	0.8	97.6	1.5	0.2
	gamma-Chlordane	0.0003	1.99	<0.1	2.9	91.9	4.5	0.7
	HAZARD INDEX			*0.068*	*2.7*	*90.8*	*5.7*	*0.8*
Inorganics								
X	Aluminum	107	41.82	3	0.3	77.9	21.8	0.0
	Antimony	0.002	0.05	<0.1	0.0	0.0	85.4	14.6
X	Arsenic	0.28	0.05	5.1	2.1	93.7	4.2	0.0
	Barium	2.89	4.33	0.67	15.9	80.2	3.8	0.1
	Beryllium	0.001	0.53	<0.1	10.8	0.0	88.6	0.6
	Cadmium	0.04	0.8	<0.1	6.7	89.3	3.9	0.1
	Chromium	0.5	7.24	<0.1	1.1	79.2	19.7	0.0
	Cobalt	0.37	4.0	<0.1	3.4	91.8	4.8	0.0
	Copper	1.8	12.2	0.14	34.0	60.4	5.6	0.0
	Cyanide	0.0	51.90	<0.1	83.9	0.0	12.9	3.3
X	Iron	691	2.57	269	0.3	94.4	5.3	0.0
X	Lead	10.34	6.4	1.61	0.0	95.1	4.9	0.0
X	Manganese	77.5	70.76	1.09	4.1	95.1	0.8	0.0
	Mercury	0.00	0.03	0.14	4.7	84.0	11.2	0.2
	Nickel	0.22	32.17	<0.1	2.2	82.8	14.9	0.0
	Selenium	0.04	0.16	0.27	11.1	84.1	4.6	0.2
	Silver	0.005	145.71	<0.1	88.4	0.0	11.1	0.5
	Thallium	0.004	0.06	<0.1	53.1	0.0	45.0	1.9
X	Vanadium	0.62	0.16	3.95	0.0	88.2	11.8	0.0
	Zinc	3.6	129	<0.1	14.9	75.9	9.1	0.0
	HAZARD INDEX			*285.1*	*0.4*	*94.0*	*5.5*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-191
HAZARD QUOTIENTS FOR MUSKRAT WETLAND REFERENCE

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00027	9.73	<0.1	0.0	0.0	7	92.6
	Acetone	0.00033	1367	<0.1	0.0	0.0	24	76.0
	cis-1,2-Dichloroethene	0.00008	2504	<0.1	0.0	0.0	35	65.2
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	37	62.5
	Trichloroethene	0.00007	3.05	<0.1	0.0	0.0	30	70.4
	HAZARD INDEX			*0.000065*	*0.0*	*0.0*	*22*	*78.4*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	64	35.6
	Acenaphthylene	0.0008	58.0	<0.1	0.0	0.0	69	30.8
	Anthracene	0.0013	435	<0.1	0.0	0.0	80	19.7
	Benzo(a)anthracene	0.0034	0.57	<0.1	0.0	0.0	93	7.3
	Benzo(a)pyrene	0.10	0.57	0.18	0.0	96.9	2.8	0.2
	Benzo(b)fluoranthene	0.09	0.57	1.58E-01	0.0	94.0	5.8	0.3
	Benzo(g,h,i)perylene	0.0011	58.0	<0.1	0.0	0.0	78	22.3
	Benzo(k)fluoranthene	0.21	0.57	0.37	0.0	97.6	2.3	0.1
	Carbazole	0.0008	58.0	<0.1	0.0	0.0	100	0.0
	Chrysene	0.10	0.57	0.17	0.0	95.9	3.8	0.3
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	68	31.5
	Dibenzofuran	0.0011	58.0	<0.1	0.0	0.0	77	23.2
	Fluoranthene	0.09	54.4	<0.1	0.0	90.8	8.9	0.3
	Fluorene	0.0016	54.4	<0.1	0.0	0.0	84	15.9
	Indeno(1,2,3-cd)pyrene	0.11	0.57	0.20	0.0	98.7	1.1	0.2
	Naphthalene	0.0008	60.9	<0.1	0.0	0.0	67	32.7
	N-nitrosodiphenylamine	0.0011	121	<0.1	0.0	0.0	77	22.7
	Phenanthrene	0.33	58.0	<0.1	0.0	98.2	1.7	0.1
	Pyrene	0.09	58.0	<0.1	0.0	92.7	7.0	0.3
	HAZARD INDEX			*1.09*	*0.0*	*96.2*	*3.5*	*0.3*
Pesticides and PCBs								
	4,4'-DDD	0.0027	6.84	<0.1	0.9	90.8	8.2	0.2
	4,4'-DDE	0.0004	0.83	<0.1	31.0	61.3	6.6	1.1
	4,4'-DDT	0.0029	0.64	<0.1	0.5	96.5	2.8	0.2
	Aldrin	0.00001	0.16	<0.1	63.6	0.0	15.1	21.3
	alpha-Chlordane	0.0001	1.99	<0.1	6.9	86.8	3.9	2.3
	Aroclor 1248	0.0003	0.57	<0.1	27.2	0.0	54	18.4
	Aroclor 1254	0.0002	0.15	<0.1	46.0	0.0	22.8	31.2
	Aroclor 1260	0.0019	0.28	<0.1	8.3	82.8	6.2	2.7
	beta-BHC	0.00001	3.22	<0.1	63.2	0.0	15.6	21.2
	delta-BHC	0.00001	1.29	<0.1	61.6	0.0	17.8	20.6
	Endosulfan I	0.0001	1.21	<0.1	9.8	84.5	2.4	3.3
	Endosulfan Sulfate	0.00003	1.21	<0.1	57.1	0.0	23.2	19.7
	Endrin Aldehyde	0.0004	0.04	<0.1	3.7	93.6	1.4	1.3
	gamma-Chlordane	0.0001	1.99	<0.1	6.5	89.1	4.3	0.1
	HAZARD INDEX			*0.024*	*7.7*	*83.5*	*5.4*	*3.3*
Inorganics								
X	Aluminum	88	41.82	2	0.3	77.9	21.8	0.0
	Antimony	0.003	0.05	<0.1	44.1	0.0	54.2	1.7
X	Arsenic	0.58	0.05	10.5	1.0	94.7	4.3	0.1
	Barium	2.93	4.33	0.68	15.7	80.3	3.8	0.2
	Beryllium	0.002	0.53	<0.1	7.8	0.0	91.9	0.3
	Cadmium	0.08	0.78	<0.1	3.2	92.8	4.0	0.0
	Chromium	1.5	7.2	0.21	0.4	79.8	19.9	0.0
	Cobalt	0.41	4.02	0.10	3.1	92.1	4.8	0.0
	Copper	2.2	12.2	0.18	27.5	66.4	6.1	0.0
	Cyanide	0.0	51.9	<0.1	83.6	0.0	13.1	3.3
X	Iron	685	2.57	267	0.3	94.4	5.3	0.0
X	Lead	16.01	6.43	2.49	0.0	95.1	4.9	0.0
	Manganese	41.4	70.8	0.59	7.6	91.5	0.8	0.1
	Mercury	0.01	0.03	0.22	2.9	85.5	11.4	0.2
	Nickel	0.30	32.2	<0.1	1.6	83.3	15.0	0.1
	Selenium	0.04	0.16	0.24	12.1	83.1	4.5	0.2
	Silver	0.007	146	<0.1	63.8	0.0	35.9	0.3
	Thallium	0.003	0.06	<0.1	62.5	0.0	35.1	2.4
X	Vanadium	1.11	0.16	7.05	0.0	88.2	11.8	0.0
	Zinc	3.9	129	<0.1	13.8	76.9	9.2	0.0
	HAZARD INDEX			*291.6*	*0.4*	*94.0*	*5.6*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-192
HAZARD QUOTIENTS FOR MUSKRAT RIVER REFERENCE

WELLS G&H SUPERFUND SITE OU3

		Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
Volatile Organics								
	2-Butanone	0.00024	9.73	<0.1	0.0	0.0	32	67.9
	Acetone	0.0005	1367	<0.1	0.0	0.0	51	48.6
	cis-1,2-Dichloroethene	0.0001	2504	<0.1	0.0	0.0	21	79.3
	Tetrachloroethene	0.0001	6.09	<0.1	0.0	0.0	19	81.2
	Trichloroethene	0.00010	3.05	<0.1	0.0	0.0	19	81.2
	HAZARD INDEX			*0.000074*	*0.0*	*0.0*	*23*	*76.6*
Semivolatile Organics								
	2-Methylnaphthalene	0.0007	62.5	<0.1	0.0	0.0	65	34.7
	Acenaphthylene	0.0008	58.0	<0.1	0.0	0.0	72	28.4
	Anthracene	0.0011	435	<0.1	0.0	0.0	78	21.6
	Benzo(a)anthracene	0.0027	0.57	<0.1	0.0	0.0	91	8.6
	Benzo(a)pyrene	0.08	0.57	0.14	0.0	96.9	2.8	0.3
	Benzo(b)fluoranthene	0.05	0.57	<0.1	0.0	93.8	5.7	0.5
	Benzo(g,h,i)perylene	0.0013	58.0	<0.1	0.0	0.0	82	17.7
	Benzo(k)fluoranthene	0.12	0.57	0.20	0.0	97.5	2.3	0.2
	Carbazole	0.0008	58.0	<0.1	0.0	0.0	71	28.5
	Chrysene	0.08	0.57	0.14	0.0	95.9	3.8	0.3
	Dibenz(a,h)anthracene	0.0008	0.57	<0.1	0.0	0.0	70	29.7
	Dibenzofuran	0.0007	58.0	<0.1	0.0	0.0	66	33.6
	Fluoranthene	0.06	54.4	<0.1	0.0	90.7	8.9	0.4
	Fluorene	0.0008	54.4	<0.1	0.0	0.0	72	27.9
	Indeno(1,2,3-cd)pyrene	0.12	0.57	0.22	0.0	98.7	1.1	0.2
	Naphthalene	0.0007	60.9	<0.1	0.0	0.0	67	33.0
	N-nitrosodiphenylamine	0.0007	121	<0.1	0.0	0.0	68	32.0
	Phenanthrene	0.20	58.0	<0.1	0.0	98.2	1.7	0.1
	Pyrene	0.06	58.0	<0.1	0.0	92.6	7.0	0.4
	HAZARD INDEX			*0.79*	*0.0*	*96.3*	*3.4*	*0.4*
Pesticides and PCBs								
	4,4'-DDD	0.0012	6.84	<0.1	2.0	89.7	8.1	0.2
	4,4'-DDE	0.0014	0.83	<0.1	9.8	81.3	8.7	0.2
	4,4'-DDT	0.0021	0.64	<0.1	0.7	96.4	2.8	0.1
	Aldrin	0.00001	0.16	<0.1	53.3	0.0	37.6	9.1
	alpha-Chlordane	0.0003	1.99	<0.1	2.9	92.4	4.2	0.5
	Aroclor 1248	0.0002	0.57	<0.1	38.1	0.0	51	11.0
	Aroclor 1254	0.0002	0.15	<0.1	38.1	0.0	50.9	11.0
	Aroclor 1260	0.0016	0.28	<0.1	9.5	82.9	6.2	1.3
	beta-BHC	0.00001	3.22	<0.1	54.0	0.0	36.7	9.2
	delta-BHC	0.00001	1.29	<0.1	53.3	0.0	37.6	9.1
	Endosulfan I	0.0005	1.21	<0.1	1.6	95.5	2.7	0.3
	Endosulfan Sulfate	0.00003	1.21	<0.1	54.7	0.0	36.7	8.6
	Endrin Aldehyde	0.0010	0.04	<0.1	1.5	96.8	1.5	0.2
	gamma-Chlordane	0.0001	1.99	<0.1	6.3	88.3	4.3	1.1
	HAZARD INDEX			*0.037*	*4.9*	*89.1*	*5.1*	*0.9*
Inorganics								
X	Aluminum	66	41.82	2	0.4	77.7	21.7	0.1
	Antimony	0.005	0.05	<0.1	29.4	0.0	58.8	11.8
X	Arsenic	0.49	0.05	9.0	1.2	94.5	4.3	0.1
	Barium	3.40	4.33	0.78	13.5	82.4	3.9	0.1
	Beryllium	0.001	0.53	<0.1	10.6	0.0	88.7	0.7
	Cadmium	0.09	0.78	0.11	2.7	93.2	4.1	0.0
	Chromium	1.2	7.2	0.17	0.4	79.7	19.9	0.0
	Cobalt	0.38	4.02	<0.1	3.3	91.9	4.8	0.1
	Copper	2.7	12.2	0.22	22.5	70.9	6.5	0.0
	Cyanide	0.0	51.9	<0.1	86.3	0.0	10.4	3.4
X	Iron	702	2.57	274	0.3	94.4	5.3	0.1
	Lead	4.87	6.43	0.76	0.0	95.1	4.9	0.0
X	Manganese	166.2	70.8	2.35	1.9	97.3	0.8	0.0
	Mercury	0.00	0.03	0.13	4.9	83.8	11.1	0.2
	Nickel	0.18	32.2	<0.1	2.6	82.4	14.9	0.1
	Selenium	0.04	0.16	0.27	11.0	84.2	4.6	0.2
	Silver	0.005	146	<0.1	86.8	0.0	12.6	0.6
	Thallium	0.003	0.06	<0.1	67.1	0.0	30.6	2.3
X	Vanadium	0.45	0.16	2.88	0.0	88.1	11.8	0.1
	Zinc	4.7	129	<0.1	11.5	79.0	9.5	0.0
	HAZARD INDEX			*292.3*	*0.4*	*94.1*	*5.4*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-193
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR HERON

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Prey HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.00013	12.1	<0.1	0.0	7	93.3
	Acetone	0.00020	1700	<0.1	0.0	39	61.1
	cis-1,2-Dichloroethene	0.00007	3114	<0.1	0.0	33	67.0
	Tetrachloroethene	0.00004	14.00	<0.1	0.0	22	78.2
	Trichloroethene	0.00005	7.00	<0.1	0.0	27	72.9
	HAZARD INDEX			*0.000020*	*0.0*	*16*	*84.4*
	Semivolatile Organics						
	2-Methylnaphthalene	0.00017	143.7	<0.1	0.0	27	72.6
	Acenaphthylene	0.00017	133.3	<0.1	0.0	27	73.0
	Anthracene	0.00018	1000	<0.1	0.0	33	67.2
	Benzo(a)anthracene	0.00032	1.30	<0.1	0.0	62	37.9
	Benzo(a)pyrene	0.00033	1.30	<0.1	0.0	63	37.0
	Benzo(b)fluoranthene	0.00047	1.30	<0.1	0.0	74	26.1
	Benzo(g,h,i)perylene	0.00025	133.3	<0.1	0.0	50	49.6
	Benzo(k)fluoranthene	0.00037	1.30	<0.1	0.0	67	33.0
	Carbazole	0.00006	133.3	<0.1	0.0	100	0.0
	Chrysene	0.00037	1.30	<0.1	0.0	67	32.8
	Dibenz(a,h)anthracene	0.00018	1.30	<0.1	0.0	33	66.6
	Dibenzofuran	0.00018	133.3	<0.1	0.0	33	67.3
	Fluoranthene	0.00055	125.0	<0.1	0.0	78	22.1
	Fluorene	0.00017	125.0	<0.1	0.0	29	70.8
	Indeno(1,2,3-cd)pyrene	0.00026	1.30	<0.1	0.0	52	47.7
	Naphthalene	0.00018	140.0	<0.1	0.0	32	67.8
	N-nitrosodiphenylamine	0.00019	150	<0.1	0.0	34	65.7
	Phenanthrene	0.00033	133.3	<0.1	0.0	63	36.9
	Pyrene	0.00047	133.3	<0.1	0.0	74	26.0
	HAZARD INDEX			*0.0018*	*0.0*	*63*	*37.2*
	Pesticides and PCBs						
	4,4'-DDD	0.0012	8.50	<0.1	99.3	0.5	0.2
	4,4'-DDE	0.0015	1.90	<0.1	99.6	0.3	0.2
	4,4'-DDT	0.0003	0.003	0.10	98.7	0.4	0.9
	Aldrin	0.0001	0.20	<0.1	98.0	0.4	1.6
	alpha-Chlordane	0.0008	2.14	<0.1	99.5	0.3	0.1
	Aroclor 1248	0.00096	0.98	<0.1	96.2	1	2.5
	Aroclor 1260	0.0043	0.35	<0.1	99.1	0.3	0.6
	beta-BHC	0.0001	4.00	<0.1	97.9	0.4	1.6
	delta-BHC	0.0001	1.60	<0.1	97.7	0.6	1.7
	Endosulfan I	0.0001	10.0	<0.1	97.2	1.3	1.5
	Endosulfan Sulfate	0.0002	10.0	<0.1	98.1	0.3	1.6
	Endrin Aldehyde	0.0002	0.30	<0.1	98.6	0.3	1.1
	gamma-Chlordane	0.0004	2.14	<0.1	98.8	0.9	0.3
	HAZARD INDEX			*0.12*	*98.7*	*0.4*	*0.8*
	Inorganics						
	Aluminum	4.95	110	<0.1	52.8	46.9	0.3
	Antimony	0.00	0.13	<0.1	66.1	33.0	0.9
	Arsenic	0.20	5.14	<0.1	59.0	40.6	0.3
	Barium	0.55	208	<0.1	97.1	2.6	0.3
	Beryllium	0.000	0.66	<0.1	64.2	35.2	0.6
	Cadmium	0.01	1.45	<0.1	71.4	28.3	0.3
	Chromium	0.20	1.00	0.20	29.6	70.1	0.3
	Cobalt	0.03	5.00	<0.1	86.5	13.3	0.2
	Copper	2.69	47.0	<0.1	96.5	3.5	0.0
	Cyanide	0.01	68.7	<0.1	97.0	2.0	0.9
X	Iron	24.78	3.19	**7.77**	72.8	26.9	0.3
	Lead	0.10	1.13	<0.1	39.6	60.1	0.4
	Manganese	5.30	977	<0.1	97.5	2.1	0.4
	Mercury	0.001	0.01	0.18	41.3	58.1	0.6
	Nickel	0.01	77.4	<0.1	49.4	49.4	1.1
	Selenium	0.02	0.40	<0.1	96.4	3.4	0.2
	Silver	0.002	181	<0.1	91.7	7.5	0.9
	Thallium	0.00	0.07	<0.1	92.3	6.8	0.9
	Vanadium	0.02	11.4	<0.1	46.4	53.2	0.4
	Zinc	1.61	14.5	0.11	82.4	17.4	0.2
	HAZARD INDEX			*8.66*	*71.2*	*28.5*	*0.3*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.

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TABLE 4-194
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR HERON

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Prey HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.00003	12.10	<0.1	0.0	100	0.0
	Acetone	0.00031	1700	<0.1	0.0	100	0.0
	cis-1,2-Dichloroethene	0.00014	3114	<0.1	0.0	31	68.8
	Tetrachloroethene	0.00005	14.00	<0.1	0.0	20	80.0
	Trichloroethene	0.00011	7.00	<0.1	0.0	59	41.3
	HAZARD INDEX			*0.000021*	*0.0*	*58*	*42.2*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0000	143.7	<0.1	0.0	100	0.0
	Acenaphthylene	0.0001	133.3	<0.1	0.0	100	0.0
	Anthracene	0.0001	1000	<0.1	0.0	100	0.0
	Benzo(a)anthracene	0.0005	1.30	<0.1	0.0	100	0.0
	Benzo(a)pyrene	0.0003	1.30	<0.1	0.0	100	0.0
	Benzo(b)fluoranthene	0.0005	1.30	<0.1	0.0	100	0.0
	Benzo(g,h,i)perylene	0.0002	133.3	<0.1	0.0	100	0.0
	Benzo(k)fluoranthene	0.0006	1.30	<0.1	0.0	100	0.0
	Carbazole	0.0001	133.3	<0.1	0.0	100	0.0
	Chrysene	0.0003	1.30	<0.1	0.0	100	0.0
	Dibenz(a,h)anthracene	0.0001	1.30	<0.1	0.0	100	0.0
	Dibenzofuran	0.0001	133.3	<0.1	0.0	100	0.0
	Fluoranthene	0.0011	125.0	<0.1	0.0	100	0.0
	Fluorene	0.0001	125.0	<0.1	0.0	100	0.0
	Indeno(1,2,3-cd)pyrene	0.0003	1.30	<0.1	0.0	100	0.0
	Naphthalene	0.0003	140.0	<0.1	0.0	50	50.4
	N-nitrosodiphenylamine	0.0001	150	<0.1	0.0	100	0.0
	Phenanthrene	0.0005	133.3	<0.1	0.0	100	0.0
	Pyrene	0.0008	133.3	<0.1	0.0	100	0.0
	HAZARD INDEX			*0.0020*	*0.0*	*100*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.00135	8.50	<0.1	98.9	1.1	0.0
	4,4-DDE	0.00181	1.90	<0.1	99.6	0.4	0.0
	4,4'-DDT	0.00034	0.003	0.1	99.2	0.8	0.0
	Aldrin	0.00010	0.20	<0.1	99.3	0.7	0.0
	alpha-Chlordane	0.00098	2.14	<0.1	99.2	0.6	0.1
	Aroclor 1248	0.00134	0.98	<0.1	98.2	2	0.0
	Aroclor 1260	0.00496	0.35	<0.1	99.5	0.5	0.0
	beta-BHC	0.000084	4.00	<0.1	99.3	1	0.0
	delta-BHC	0.000097	1.60	<0.1	98.8	1	0.0
	Endosulfan I	0.00011	10.0	<0.1	97.1	2.9	0.0
	Endosulfan Sulfate	0.00018	10.0	<0.1	99.7	0.3	0.0
	Endrin Aldehyde	0.00028	0.30	<0.1	99.6	0.4	0.0
	gamma-Chlordane	0.00060	2.14	<0.1	97.0	2.7	0.2
	HAZARD INDEX			*0.15*	*99.2*	*0.8*	*0.0*
	Inorganics						
	Aluminum	6.14	109.7	<0.1	57.9	41.7	0.4
	Antimony	0.01	0.13	<0.1	66.9	33	0.5
	Arsenic	0.30	5.14	<0.1	60.1	39.6	0.4
	Barium	0.74	208	<0.1	97.6	2.1	0.3
	Beryllium	0.0007	0.66	<0.1	76.4	23	0.6
	Cadmium	0.01	1.45	<0.1	78.8	20.1	1.0
	Chromium	0.35	1.00	0.3	29.1	70.6	0.3
	Cobalt	0.04	5.00	<0.1	88.1	11.7	0.2
	Copper	3.20	47.0	<0.1	95.2	4.8	0.1
	Cyanide	0.02	47.0	<0.1	97.9	2.1	0.0
X	Iron	37.27	3.19	**11.7**	74.9	24.8	0.3
	Lead	0.14	1.13	0.1	47.9	51.5	0.6
	Manganese	6.89	977	<0.1	97.7	2.0	0.4
	Mercury	0.003	0.01	0.4	60.0	39.4	0.6
	Nickel	0.01	77.4	<0.1	54.3	45	1.1
	Selenium	0.06	0.40	0.1	97.8	2.1	0.1
	Silver	0.004	181	<0.1	92.0	7.5	0.5
	Thallium	0.01	0.07	0.1	93.5	6.1	0.4
	Vanadium	0.03	11.4	<0.1	56.8	43	0.4
	Zinc	2.99	14.5	0.2	88.6	10.7	0.7
	HAZARD INDEX			*13.35*	*73.6*	*26.1*	*0.3*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.

TABLE 4-195
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR HERON (REFERENCE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Prey HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.00010	12.1	<0.1	0.0	11	88.5
	Acetone	0.00016	1700	<0.1	0.0	24	75.6
	cis-1,2-Dichloroethene	0.00004	3114	<0.1	0.0	6	94.0
	Tetrachloroethene	0.00004	14.00	<0.1	0.0	6	94.0
	Trichloroethene	0.00004	7.00	<0.1	0.0	5	94.9
	HAZARD INDEX			*0.000017*	*0.0*	*9*	*91.4*
	Semivolatile Organics						
	2-Methylnaphthalene	0.00018	143.7	<0.1	0.0	34	65.9
	Acenaphthylene	0.00019	133.3	<0.1	0.0	37	62.8
	Anthracene	0.00021	1000	<0.1	0.0	45	55.5
	Benzo(a)anthracene	0.00038	1.30	<0.1	0.0	69	30.9
	Benzo(a)pyrene	0.00036	1.30	<0.1	0.0	67	32.6
	Benzo(b)fluoranthene	0.00045	1.30	<0.1	0.0	74	26.2
	Benzo(g,h,i)perylene	0.00022	133.3	<0.1	0.0	48	52.1
	Benzo(k)fluoranthene	0.00043	1.30	<0.1	0.0	73	27.0
	Carbazole	0.00019	133.3	<0.1	0.0	41	59.4
	Chrysene	0.00042	1.30	<0.1	0.0	72	28.2
	Dibenz(a,h)anthracene	0.00018	1.30	<0.1	0.0	35	64.5
	Dibenzofuran	0.00019	133.3	<0.1	0.0	38	61.5
	Fluoranthene	0.00068	125.0	<0.1	0.0	83	17.2
	Fluorene	0.00021	125.0	<0.1	0.0	43	56.7
	Indeno(1,2,3-cd)pyrene	0.00026	1.30	<0.1	0.0	55	44.8
	Naphthalene	0.00018	140.0	<0.1	0.0	35	64.8
	N-nitrosodiphenylamine	0.00019	150	<0.1	0.0	39	60.9
	Phenanthrene	0.00046	133.3	<0.1	0.0	75	25.4
	Pyrene	0.00057	133.3	<0.1	0.0	79	20.7
	HAZARD INDEX			*0.0019*	*0.0*	*67*	*33.2*
	Pesticides and PCBs						
	4,4'-DDD	0.0001	8.50	<0.1	91.0	7.9	1.1
	4,4'-DDE	0.0008	1.90	<0.1	99.0	0.8	0.2
	4,4'-DDT	0.0001	0.003	<0.1	93.1	5.4	1.5
	Aldrin	0.0000	0.20	<0.1	96.7	1.5	1.8
	alpha-Chlordane	0.0000	2.14	<0.1	96.5	2.0	1.6
	Aroclor 1248	0.00044	0.98	<0.1	93.2	4	3.2
	Aroclor 1260	0.0011	0.35	<0.1	97.4	1.3	1.3
	beta-BHC	0.0000	4.00	<0.1	96.7	1.5	1.8
	delta-BHC	0.0000	1.60	<0.1	96.6	1.6	1.8
	Endosulfan I	0.0000	10.0	<0.1	95.0	3.3	1.7
	Endosulfan Sulfate	0.0001	10.0	<0.1	96.7	1.5	1.7
	Endrin Aldehyde	0.0001	0.30	<0.1	96.4	1.9	1.7
	gamma-Chlordane	0.0000	2.14	<0.1	96.8	1.7	1.5
	HAZARD INDEX			*0.04*	*93.6*	*4.9*	*1.5*
	Inorganics						
	Aluminum	2.41	110	<0.1	25.3	74.0	0.7
	Antimony	0.01	0.13	<0.1	91.4	4.4	4.2
	Arsenic	0.02	5.14	<0.1	76.4	22.6	1.0
	Barium	0.91	208	<0.1	98.5	1.3	0.2
	Beryllium	0.000	0.66	<0.1	65.8	33.2	1.1
	Cadmium	0.00	1.45	<0.1	94.4	5.4	0.2
	Chromium	0.04	1.00	<0.1	49.7	50.0	0.3
	Cobalt	0.03	5.00	<0.1	92.6	7.1	0.3
	Copper	1.08	47.0	<0.1	98.7	1.3	0.0
	Cyanide	0.02	68.7	<0.1	99.0	0.4	0.6
X	Iron	8.69	3.19	**2.72**	57.3	41.1	1.6
	Lead	0.05	1.13	<0.1	6.8	92.4	0.8
	Manganese	6.19	977	<0.1	98.3	1.3	0.4
	Mercury	0.003	0.01	0.44	98.4	1.5	0.1
	Nickel	0.01	77.4	<0.1	72.0	27.4	0.6
	Selenium	0.04	0.40	<0.1	99.3	0.5	0.1
	Silver	0.009	181	<0.1	98.7	1.2	0.2
	Thallium	0.00	0.07	<0.1	95.8	3.2	0.9
	Vanadium	0.01	11.4	<0.1	0.0	98.6	1.4
	Zinc	2.18	14.5	0.15	98.2	1.7	0.0
	HAZARD INDEX			*3.65*	*65.5*	*33.2*	*1.3*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.

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TABLE 4-196
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR HERON (REFERENCE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Prey HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.00019	12.10	<0.1	0.0	46	54.4
	Acetone	0.00008	1700	<0.1	0.0	100	0.0
	cis-1,2-Dichloroethene	0.00005	3114	<0.1	0.0	6	94.1
	Tetrachloroethene	0.00005	14.00	<0.1	0.0	6	94.2
	Trichloroethene	0.00005	7.00	<0.1	0.0	5	95.4
	HAZARD INDEX			*0.000026*	*0.0*	*30*	*70.2*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0002	143.7	<0.1	0.0	40	59.6
	Acenaphthylene	0.0003	133.3	<0.1	0.0	52	47.7
	Anthracene	0.0003	1000	<0.1	0.0	53	47.3
	Benzo(a)anthracene	0.0006	1.30	<0.1	0.0	81	19.0
	Benzo(a)pyrene	0.0006	1.30	<0.1	0.0	79	21.2
	Benzo(b)fluoranthene	0.0006	1.30	<0.1	0.0	81	19.2
	Benzo(g,h,i)perylene	0.0003	133.3	<0.1	0.0	63	36.8
	Benzo(k)fluoranthene	0.0007	1.30	<0.1	0.0	84	16.5
	Carbazole	0.0002	133.3	<0.1	0.0	47	53.0
	Chrysene	0.0007	1.30	<0.1	0.0	83	16.9
	Dibenz(a,h)anthracene	0.0002	1.30	<0.1	0.0	47	53.4
	Dibenzofuran	0.0003	133.3	<0.1	0.0	54	45.7
	Fluoranthene	0.0010	125.0	<0.1	0.0	88	11.7
	Fluorene	0.0003	125.0	<0.1	0.0	63	36.5
	Indeno(1,2,3-cd)pyrene	0.0004	1.30	<0.1	0.0	72	28.2
	Naphthalene	0.0003	140.0	<0.1	0.0	45	54.5
	N-nitrosodiphenylamine	0.0003	150	<0.1	0.0	55	45.3
	Phenanthrene	0.0007	133.3	<0.1	0.0	82	18.4
	Pyrene	0.0008	133.3	<0.1	0.0	85	14.6
	HAZARD INDEX			*0.0031*	*0.0*	*78*	*21.5*
	Pesticides and PCBs						
	4,4'-DDD	0.00022	8.50	<0.1	86.3	11.5	2.2
	4,4-DDE	0.00113	1.90	<0.1	98.5	1.1	0.4
	4,4'-DDT	0.00011	0.003	<0.1	87.6	8.1	4.3
	Aldrin	0.00005	0.20	<0.1	96.3	0.8	2.9
	alpha-Chlordane	0.00005	2.14	<0.1	94.6	2.7	2.6
	Aroclor 1248	0.02507	0.98	<0.1	99.7	0	0.2
	Aroclor 1260	0.00152	0.35	<0.1	93.9	2.9	3.2
	beta-BHC	0.000047	4.00	<0.1	96.7	0	2.9
	delta-BHC	0.000049	1.60	<0.1	93.1	4	2.8
	Endosulfan I	0.00004	10.0	<0.1	87.7	9.1	3.2
	Endosulfan Sulfate	0.00009	10.0	<0.1	93.0	2.0	5.0
	Endrin Aldehyde	0.00009	0.30	<0.1	93.6	1.4	5.0
	gamma-Chlordane	0.00005	2.14	<0.1	97.6	2.2	0.2
	HAZARD INDEX			*0.09*	*93.9*	*3.9*	*2.2*
	Inorganics						
	Aluminum	2.82	109.7	<0.1	24.3	73.4	2.4
	Antimony	0.00	0.13	<0.1	66.4	8	25.4
	Arsenic	0.01	5.14	<0.1	27.6	68.2	4.2
	Barium	1.08	208	<0.1	98.4	1.4	0.2
	Beryllium	0.0004	0.66	<0.1	62.9	36	1.2
	Cadmium	0.01	1.45	<0.1	92.0	7.6	0.4
	Chromium	0.11	1.00	0.1	22.5	77.5	0.0
	Cobalt	0.03	5.00	<0.1	90.3	8.4	1.3
	Copper	1.14	47.0	<0.1	98.2	1.8	0.0
	Cyanide	0.01	68.7	<0.1	99.0	1.0	0.0
X	Iron	10.87	3.19	**3.4**	55.4	41.9	2.7
	Lead	0.07	1.13	<0.1	2.3	96.4	1.3
	Manganese	7.29	977	<0.1	97.3	2.1	0.6
	Mercury	0.004	0.01	0.6	98.0	1.9	0.1
	Nickel	0.01	77.4	<0.1	21.5	76	2.6
	Selenium	0.04	0.40	0.1	99.0	0.9	0.1
	Silver	0.012	181	<0.1	97.8	2.0	0.1
	Thallium	0.00	0.07	<0.1	94.6	4.4	1.0
	Vanadium	0.01	11.4	<0.1	0.0	98	2.4
	Zinc	2.57	14.5	0.2	97.8	2.1	0.1
	HAZARD INDEX			*4.61*	*62.8*	*35.0*	*2.2*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.

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TABLE 4-197
HAZARD QUOTIENT SUMMARY FOR HERON AND MALLARD

WELLS G&H SUPERFUND SITE OU3

Species	Case	COPC HAZARD QUOTIENT[1]				
		Arsenic	Chromium	Iron	Lead	Mercury
Heron	Reference Average			3		
	Reference 95% UCL			3		
	Site-wide[2] Average			8		
	Site-wide 95% UCL			12		
Mallard	Reference Average			37	1.3	
	Reference 95% UCL			47	2	
	Site-wide[3] Average		3	68	2	1.5
	Site-wide 95% UCL		4	90	3	2
	38-acre[4] Average		5	97	4	2
	38-acre 95% UCL		9	112	4	3

[1] A blank cell indicates that the HQ was less than 1.0

[2] Stations included in the heron site-wide analysis are shown in Table 4-32

[3] Stations included in the mallard site-wide analysis are shown in Table 4-32

[4] Stations included in the mallard 38-acre wetland analysis are shown in Table 4-32

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TABLE 4-198
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (SITE-WIDE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.00011	12.1	<0.1	0.0	0.0	33	66.5
	Acetone	0.00044	1700	<0.1	0.0	0.0	83	16.5
	cis-1,2-Dichloroethene	0.00012	3114	<0.1	0.0	0.0	77	22.7
	Tetrachloroethene	0.00005	14.00	<0.1	0.0	0.0	67	33.0
	Trichloroethene	0.00007	7.00	<0.1	0.0	0.0	72	27.8
	HAZARD INDEX			*0.000023*	*0.0*	*0.0*	*56*	*0.4*
	Semivolatile Organics							
	2-Methylnaphthalene	0.0003	143.7	<0.1	0.0	0.0	73	27.4
	Acenaphthylene	0.0003	133.3	<0.1	0.0	0.0	72	27.9
	Anthracene	0.0003	1000	<0.1	0.0	0.0	77	22.8
	Benzo(a)anthracene	0.001	1.30	<0.1	0.0	0.0	92	8.3
	Benzo(a)pyrene	0.01	1.30	<0.1	0.0	92.1	7.3	0.6
	Benzo(b)fluoranthene	0.01	1.30	<0.1	0.0	85.1	14.1	0.7
	Benzo(g,h,i)perylene	0.001	133.3	<0.1	0.0	0.0	87	12.6
	Benzo(k)fluoranthene	0.02	1.30	<0.1	0.0	93.6	5.9	0.4
	Carbazole	0.0002	133.3	<0.1	0.0	0.0	100	0.0
	Chrysene	0.01	1.30	<0.1	0.0	89.6	9.7	0.7
	Dibenz(a,h)anthracene	0.0003	1.30	<0.1	0.0	0.0	78	22.4
	Dibenzofuran	0.0003	133.3	<0.1	0.0	0.0	77	22.6
	Fluoranthene	0.01	125.0	<0.1	0.0	78.2	20.9	0.9
	Fluorene	0.0003	125.0	<0.1	0.0	0.0	74	25.8
	Indeno(1,2,3-cd)pyrene	0.02	1.30	<0.1	0.0	96.7	2.9	0.4
	Naphthalene	0.0003	140.0	<0.1	0.0	0.0	77	23.3
	N-nitrosodiphenylamine	0.0003	150	<0.1	0.0	0.0	79	21.5
	Phenanthrene	0.02	133.3	<0.1	0.0	95.2	4.5	0.4
	Pyrene	0.01	133.3	<0.1	0.0	82.2	16.9	0.9
	HAZARD INDEX			*0.05*	*0.0*	*90.7*	*8.6*	*0.7*
	Pesticides and PCBs							
	4,4'-DDD	0.00032	8.50	<0.1	61.0	31.0	7.6	0.5
	4,4'-DDE	0.00048	1.90	<0.1	85.2	11.3	3.3	0.3
	4,4'-DDT	0.00016	0.003	<0.1	57.4	38.7	3.0	0.9
	Aldrin	0.00003	0.20	<0.1	92.1	0.0	5.0	2.9
	alpha-Chlordane	0.00017	2.14	<0.1	43.4	50.0	6.2	0.4
	Aroclor 1248	0.00029	0.98	<0.1	74.3	0.0	21	5.0
	Aroclor 1260	0.0032	0.35	<0.1	65.9	28.0	5.7	0.5
	beta-BHC	0.00002	4.00	<0.1	91.8	0.0	5	2.9
	delta-BHC	0.00002	1.60	<0.1	89.7	0.0	7	3.0
	Endosulfan I	0.00009	10.0	<0.1	33.5	61.1	4.7	0.8
	Endosulfan Sulfate	0.00007	10.0	<0.1	94.6	0.0	3.2	2.2
	Endrin Aldehyde	0.00024	0.30	<0.1	70.1	28.1	1.2	0.6
	gamma-Chlordane	0.00015	2.14	<0.1	21.1	69.4	9.1	0.4
	HAZARD INDEX			*0.07*	*59.2*	*36.4*	*3.5*	*0.8*
	Inorganics							
	Aluminum	26.6	110	0.24	15.3	48.2	36.5	0.0
	Antimony	0.01	0.13	<0.1	40.4	0.0	59	0.2
	Arsenic	1.54	5.14	0.30	11.7	71.2	17.0	0.0
	Barium	1.55	208	<0.1	53.6	41.0	5.3	0.1
	Beryllium	0.00	0.66	<0.1	40.5	0.0	59	0.1
	Cadmium	0.06	1.45	<0.1	9.2	81.2	9.6	0.0
X	Chromium	2.93	1.00	**2.93**	3.2	57.8	39.0	0.0
	Cobalt	0.15	5.00	<0.1	24.3	66.2	9.4	0.0
	Copper	5.89	47.0	0.13	68.7	25.0	6.2	0.0
	Cyanide	0.02	68.7	<0.1	94.9	0.0	4.8	0.4
X	Iron	217	3.19	**68.0**	13.0	75.5	11.5	0.0
X	Lead	2.71	1.13	**2.40**	2.3	85.8	11.9	0.0
	Manganese	27.62	977	<0.1	29.2	69.2	1.5	0.0
X	Mercury	0.01	0.01	**1.46**	8.0	67.6	24.3	0.0
	Nickel	0.07	77.4	<0.1	9.9	60.5	29.5	0.1
	Selenium	0.06	0.40	0.14	58.1	36.5	5.4	0.0
	Silver	0.00	181	<0.1	83.3	0.0	16.4	0.3
	Thallium	0.01	0.07	**0.11**	83.8	0.0	15.9	0.3
	Vanadium	0.17	11.4	<0.1	7.2	68.1	24.7	0.0
	Zinc	6.6	14.5	0.46	31.1	51.9	16.9	0.0
	HAZARD INDEX			*76.33*	*12.6*	*74.4*	*13.0*	*0.02*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

TABLE 4-199
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (SITE-WIDE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.0001	12.1	<0.1	0.0	0.0	100	0.0
	Acetone	0.0013	1700	<0.1	0.0	0.0	100	0.0
	cis-1,2-Dichloroethene	0.0002	3114	<0.1	0.0	0.0	76	24.2
	Tetrachloroethene	0.0001	14.00	<0.1	0.0	0.0	64	36.3
	Trichloroethene	0.0003	7.00	<0.1	0.0	0.0	91	9.4
	HAZARD INDEX			*0.00006*	*0.0*	*0.0*	*90*	*9.7*
	Semivolatile Organics							
	2-Methylnaphthalene	0.000	143.7	<0.1	0.0	0.0	100	0.0
	Acenaphthylene	0.0003	133.3	<0.1	0.0	0.0	100	0.0
	Anthracene	0.000	1000	<0.1	0.0	0.0	100	0.0
	Benzo(a)anthracene	0.002	1.30	<0.1	0.0	0.0	100	0.0
	Benzo(a)pyrene	0.027	1.30	<0.1	0.0	92.6	7.4	0.0
	Benzo(b)fluoranthene	0.022	1.30	<0.1	0.0	85.8	14.2	0.0
	Benzo(g,h,i)perylene	0.001	133.3	<0.1	0.0	0.0	100	0.0
	Benzo(k)fluoranthene	0.020	1.30	<0.1	0.0	94.0	6.0	0.0
	Carbazole	0.000	133.3	<0.1	0.0	0.0	100	0.0
	Chrysene	0.024	1.30	<0.1	0.0	90.2	9.8	0.0
	Dibenz(a,h)anthracene	0.000	1.30	<0.1	0.0	0.0	100	0.0
	Dibenzofuran	0.000	133.3	<0.1	0.0	0.0	100	0.0
	Fluoranthene	0.020	125.0	<0.1	0.0	78.9	21.1	0.0
	Fluorene	0.000	125.0	<0.1	0.0	0.0	100	0.0
	Indeno(1,2,3-cd)pyrene	0.022	1.30	<0.1	0.0	97.1	2.9	0.0
	Naphthalene	0.001	140.0	<0.1	0.0	0.0	87	13.1
	N-nitrosodiphenylamine	0.000	150	<0.1	0.0	0.0	100	0.0
	Phenanthrene	0.046	133.3	<0.1	0.0	95.5	4.5	0.0
	Pyrene	0.011	133.3	<0.1	0.0	82.9	17.1	0.0
	HAZARD INDEX			*0.09*	*0.0*	*90.1*	*9.9*	*0.0*
	Pesticides and PCBs							
	4,4'-DDD	0.0006	8.50	<0.1	48.2	41.6	10.2	0.0
	4,4-DDE	0.0007	1.90	<0.1	78.6	16.6	4.8	0.0
	4,4'-DDT	0.0002	0.003	<0.1	57.6	39.3	3.1	0.0
	Aldrin	0.00003	0.20	<0.1	89.2	0.0	10.8	0.0
	alpha-Chlordane	0.0003	2.14	<0.1	31.8	60.7	7.5	0.0
	Aroclor 1248	0.0003	0.98	<0.1	70.5	0.0	30	0.0
	Aroclor 1260	0.0056	0.35	<0.1	48.6	42.7	8.6	0.0
	beta-BHC	0.00003	4.00	<0.1	91.8	0.0	8	0.0
	delta-BHC	0.00003	1.60	<0.1	84.2	0.0	16	0.0
	Endosulfan I	0.0002	10.0	<0.1	18.4	75.8	5.8	0.0
	Endosulfan Sulfate	0.0001	10.0	<0.1	97.6	0.0	2.4	0.0
	Endrin Aldehyde	0.0003	0.30	<0.1	68.4	30.3	1.2	0.0
	gamma-Chlordane	0.0006	2.14	<0.1	7.6	81.7	10.7	0.0
	HAZARD INDEX			*0.10*	*56.5*	*39.1*	*4.4*	*0.0*
	Inorganics							
	Aluminum	29.2	110	0.3	16.5	47.5	36.0	0.0
	Antimony	0.01	0.13	0.1	28.8	0.0	71	0.2
	Arsenic	2.81	5.14	0.5	9.0	73.4	17.6	0.0
	Barium	1.81	208	<0.1	59.5	35.8	4.6	0.1
	Beryllium	0.001	0.66	<0.1	41.7	0.0	58	0.2
	Cadmium	0.07	1.45	<0.1	11.4	79.2	9.3	0.1
X	Chromium	4.04	1.00	**4.0**	3.3	57.7	39.0	0.0
	Cobalt	0.17	5.00	<0.1	26.0	64.7	9.2	0.0
	Copper	7.41	47.0	0.2	63.1	29.5	7.4	0.0
	Cyanide	0.02	68.7	<0.1	92.7	0.0	7.3	0.0
X	Iron	286	3.19	**89.7**	13.2	75.3	11.5	0.0
X	Lead	3.03	1.13	**2.7**	2.8	85.4	11.8	0.0
	Manganese	32.8	977	<0.1	30.2	68.2	1.5	0.0
X	Mercury	0.01	0.01	**2.0**	7.8	67.8	24.4	0.1
	Nickel	0.08	77.4	<0.1	11.0	59.7	29.1	0.1
	Selenium	0.07	0.40	0.2	52.8	41.2	6.0	0.0
	Silver	0.00	181	<0.1	82.8	0.0	17.0	0.2
	Thallium	0.01	0.07	0.2	81.3	0.0	18.5	0.2
	Vanadium	0.20	11.4	<0.1	7.7	67.7	24.5	0.0
	Zinc	7.3	14.5	0.5	30.9	52.0	16.9	0.2
	HAZARD INDEX			*100.5*	*12.8*	*74.2*	*13.0*	*0.0*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-200
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (38-ACRE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.00016	12.1	<0.1	0.0	0.0	56	44.3
	Acetone	0.00066	1700	<0.1	0.0	0.0	89	10.9
	cis-1,2-Dichloroethene	0.00013	3114	<0.1	0.0	0.0	87	13.5
	Tetrachloroethene	0.00009	14.00	<0.1	0.0	0.0	84	16.2
	Trichloroethene	0.00013	7.00	<0.1	0.0	0.0	89	10.8
	HAZARD INDEX			*0.000040*	*0.0*	*0.0*	*77*	*0.2*
	Semivolatile Organics							
	2-Methylnaphthalene	0.0002	143.7	<0.1	0.0	0.0	67	33.1
	Acenaphthylene	0.0002	133.3	<0.1	0.0	0.0	66	34.0
	Anthracene	0.0003	1000	<0.1	0.0	0.0	72	27.6
	Benzo(a)anthracene	0.001	1.30	<0.1	0.0	0.0	86	13.7
	Benzo(a)pyrene	0.01	1.30	<0.1	0.0	91.8	7.3	0.9
	Benzo(b)fluoranthene	0.01	1.30	<0.1	0.0	84.9	14.1	1.0
	Benzo(g,h,i)perylene	0.000	133.3	<0.1	0.0	0.0	84	15.5
	Benzo(k)fluoranthene	0.01	1.30	<0.1	0.0	93.4	5.9	0.7
	Carbazole	0.0003	133.3	<0.1	0.0	0.0	100	0.0
	Chrysene	0.01	1.30	<0.1	0.0	89.2	9.6	1.1
	Dibenz(a,h)anthracene	0.0003	1.30	<0.1	0.0	0.0	76	24.2
	Dibenzofuran	0.0003	133.3	<0.1	0.0	0.0	79	20.9
	Fluoranthene	0.01	125.0	<0.1	0.0	77.8	20.8	1.4
	Fluorene	0.0003	125.0	<0.1	0.0	0.0	71	29.0
	Indeno(1,2,3-cd)pyrene	0.01	1.30	<0.1	0.0	96.6	2.9	0.5
	Naphthalene	0.0004	140.0	<0.1	0.0	0.0	80	20.5
	N-nitrosodiphenylamine	0.0004	150	<0.1	0.0	0.0	81	19.3
	Phenanthrene	0.01	133.3	<0.1	0.0	94.9	4.4	0.6
	Pyrene	0.01	133.3	<0.1	0.0	81.8	16.8	1.4
	HAZARD INDEX			*0.04*	*0.0*	*90.6*	*8.3*	*1.1*
	Pesticides and PCBs							
	4,4'-DDD	0.00019	8.50	<0.1	27.3	57.8	14.1	0.8
	4,4'-DDE	0.00016	1.90	<0.1	49.1	38.8	11.3	0.9
	4,4'-DDT	0.00012	0.003	<0.1	74.3	22.7	1.8	1.2
	Aldrin	0.00003	0.20	<0.1	92.6	0.0	4.7	2.7
	alpha-Chlordane	0.00017	2.14	<0.1	30.3	61.7	7.6	0.4
	Aroclor 1248	0.00030	0.98	<0.1	67.3	0.0	28	4.8
	Aroclor 1260	0.0036	0.35	<0.1	48.0	42.9	8.7	0.4
	beta-BHC	0.00002	4.00	<0.1	92.4	0.0	4	3.2
	delta-BHC	0.00002	1.60	<0.1	91.3	0.0	5	3.2
	Endosulfan I	0.00015	10.0	<0.1	33.0	61.8	4.7	0.5
	Endosulfan Sulfate	0.00008	10.0	<0.1	96.3	0.0	1.9	1.8
	Endrin Aldehyde	0.00026	0.30	<0.1	70.0	28.3	1.2	0.6
	gamma-Chlordane	0.00021	2.14	<0.1	9.9	79.4	10.4	0.3
	HAZARD INDEX			*0.06*	*69.2*	*26.2*	*3.5*	*1.1*
	Inorganics							
	Aluminum	32.6	110	0.30	12.0	50.1	37.9	0.0
	Antimony	0.02	0.13	0.12	26.9	0.0	73	0.1
	Arsenic	2.59	5.14	0.50	11.8	71.1	17.0	0.0
	Barium	1.78	208	<0.1	40.2	52.9	6.8	0.1
	Beryllium	0.00	0.66	<0.1	35.6	0.0	64	0.1
	Cadmium	0.08	1.45	<0.1	5.5	84.6	10.0	0.0
X	Chromium	5.24	1.00	**5.24**	1.4	58.9	39.7	0.0
	Cobalt	0.19	5.00	<0.1	21.2	69.0	9.8	0.0
	Copper	7.16	47.0	0.15	61.8	30.6	7.6	0.0
	Cyanide	0.00	68.7	<0.1	0.0	0.0	100.0	0.0
X	Iron	310	3.19	**97.1**	15.2	73.6	11.2	0.0
X	Lead	4.10	1.13	**3.63**	1.0	86.9	12.0	0.0
	Manganese	33.71	977	<0.1	21.4	76.8	1.7	0.0
X	Mercury	0.01	0.01	**1.95**	5.9	69.2	24.9	0.0
	Nickel	0.09	77.4	<0.1	6.5	62.8	30.7	0.1
	Selenium	0.06	0.40	0.16	42.9	49.7	7.3	0.0
	Silver	0.00	181	<0.1	82.1	0.0	17.7	0.2
	Thallium	0.01	0.07	<0.1	78.5	0.0	21.2	0.3
	Vanadium	0.21	11.4	<0.1	5.4	69.4	25.2	0.0
	Zinc	8.7	14.5	0.60	26.8	55.2	18.0	0.0
	HAZARD INDEX			*110.00*	*14.1*	*72.8*	*13.0*	*0.02*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

US EPA ARCHIVE DOCUMENT

TABLE 4-201
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (38-ACRE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.0001	12.1	<0.1	0.0	0.0	100	0.0
	Acetone	0.0013	1700	<0.1	0.0	0.0	100	0.0
	cis-1,2-Dichloroethene	0.0002	3114	<0.1	0.0	0.0	90	10.0
	Tetrachloroethene	0.0000	14.00	<0.1	0.0	0.0	100	0.0
	Trichloroethene	0.0010	7.00	<0.1	0.0	0.0	100	0.0
	HAZARD INDEX			*0.00015*	*0.0*	*0.0*	*100*	*0.0*
	Semivolatile Organics							
	2-Methylnaphthalene	0.000	143.7	<0.1	0.0	0.0	100	0.0
	Acenaphthylene	0.0000	133.3	<0.1	0.0	0.0	100	0.0
	Anthracene	0.000	1000	<0.1	0.0	0.0	100	0.0
	Benzo(a)anthracene	0.001	1.30	<0.1	0.0	0.0	100	0.0
	Benzo(a)pyrene	0.010	1.30	<0.1	0.0	92.6	7.4	0.0
	Benzo(b)fluoranthene	0.010	1.30	<0.1	0.0	85.8	14.2	0.0
	Benzo(g,h,i)perylene	0.000	133.3	<0.1	0.0	0.0	100	0.0
	Benzo(k)fluoranthene	0.013	1.30	<0.1	0.0	94.0	6.0	0.0
	Carbazole	0.000	133.3	<0.1	0.0	0.0	100	0.0
	Chrysene	0.008	1.30	<0.1	0.0	90.2	9.8	0.0
	Dibenz(a,h)anthracene	0.000	1.30	<0.1	0.0	0.0	100	0.0
	Dibenzofuran	0.000	133.3	<0.1	0.0	0.0	100	0.0
	Fluoranthene	0.007	125.0	<0.1	0.0	78.9	21.1	0.0
	Fluorene	0.000	125.0	<0.1	0.0	0.0	100	0.0
	Indeno(1,2,3-cd)pyrene	0.018	1.30	<0.1	0.0	97.1	2.9	0.0
	Naphthalene	0.001	140.0	<0.1	0.0	0.0	83	16.7
	N-nitrosodiphenylamine	0.000	150	<0.1	0.0	0.0	100	0.0
	Phenanthrene	0.014	133.3	<0.1	0.0	95.5	4.5	0.0
	Pyrene	0.007	133.3	<0.1	0.0	82.9	17.1	0.0
	HAZARD INDEX			*0.05*	*0.0*	*91.5*	*8.5*	*0.0*
	Pesticides and PCBs							
	4,4'-DDD	0.0006	8.50	<0.1	0.0	80.4	19.6	0.0
	4,4-DDE	0.0003	1.90	<0.1	0.0	77.5	22.5	0.0
	4,4'-DDT	0.0001	0.003	<0.1	74.3	23.9	1.9	0.0
	Aldrin	0.00003	0.20	<0.1	78.0	0.0	22.0	0.0
	alpha-Chlordane	0.0004	2.14	<0.1	0.0	89.0	11.0	0.0
	Aroclor 1248	0.0001	0.98	<0.1	0.0	0.0	100	0.0
	Aroclor 1260	0.0095	0.35	<0.1	23.9	63.3	12.8	0.0
	beta-BHC	0.00000	4.00	<0.1	0.0	0.0	100	0.0
	delta-BHC	0.00001	1.60	<0.1	0.0	0.0	100	0.0
	Endosulfan I	0.0005	10.0	<0.1	0.0	92.9	7.1	0.0
	Endosulfan Sulfate	0.0001	10.0	<0.1	99.4	0.0	0.6	0.0
	Endrin Aldehyde	0.0003	0.30	<0.1	67.9	30.8	1.3	0.0
	gamma-Chlordane	0.0002	2.14	<0.1	0.0	88.4	11.6	0.0
	HAZARD INDEX			*0.08*	*56.4*	*36.9*	*6.7*	*0.0*
	Inorganics							
	Aluminum	35.1	110	0.3	11.4	50.3	38.1	0.2
	Antimony	0.01	0.13	0.1	0.0	0.0	100	0.2
	Arsenic	4.12	5.14	0.8	8.7	73.6	17.6	0.0
	Barium	1.07	208	<0.1	0.0	88.4	11.4	0.1
	Beryllium	0.001	0.66	<0.1	0.0	0.0	100	0.4
	Cadmium	0.12	1.45	<0.1	4.4	85.5	10.1	0.1
X	Chromium	9.12	1.00	**9.1**	0.9	59.2	39.9	0.0
	Cobalt	0.21	5.00	<0.1	21.9	68.4	9.7	0.1
	Copper	7.98	47.00	0.2	60.8	31.4	7.8	0.0
	Cyanide	0.00	68.70	<0.1	0.0	0.0	100.0	0.0
X	Iron	357	3.19	**111.9**	14.7	74.0	11.3	0.1
X	Lead	4.64	1.13	**4.1**	1.0	87.0	12.0	0.0
	Manganese	39.1	977	<0.1	23.3	74.9	1.7	0.0
X	Mercury	0.02	0.01	**3.0**	0.0	73.5	26.4	0.1
	Nickel	0.09	77.4	<0.1	0.0	67.1	32.8	0.1
	Selenium	0.07	0.40	0.2	41.2	51.2	7.5	0.0
	Silver	0.01	181	<0.1	82.2	0.0	17.6	0.2
	Thallium	0.00	0.07	<0.1	0.0	0.0	99.2	0.8
	Vanadium	0.21	11.4	<0.1	0.0	73.3	26.6	0.1
	Zinc	9.4	14.5	0.6	25.2	56.3	18.3	0.2
	HAZARD INDEX			*130.5*	*13.1*	*73.0*	*13.9*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-202
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (REFERENCE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.00010	12.1	<0.1	0.0	0.0	48	52.4
	Acetone	0.00024	1700	<0.1	0.0	0.0	69	30.7
	cis-1,2-Dichloroethene	0.00003	3114	<0.1	0.0	0.0	31	69.2
	Tetrachloroethene	0.00003	14.00	<0.1	0.0	0.0	31	69.1
	Trichloroethene	0.00003	7.00	<0.1	0.0	0.0	27	72.5
	HAZARD INDEX			*0.000015*	*0.0*	*0.0*	*40*	*0.6*
	Semivolatile Organics							
	2-Methylnaphthalene	0.0003	143.7	<0.1	0.0	0.0	78	21.6
	Acenaphthylene	0.0004	133.3	<0.1	0.0	0.0	81	19.4
	Anthracene	0.0005	1000	<0.1	0.0	0.0	85	15.1
	Benzo(a)anthracene	0.001	1.30	<0.1	0.0	0.0	94	6.0
	Benzo(a)pyrene	0.01	1.30	<0.1	0.0	92.2	7.3	0.5
	Benzo(b)fluoranthene	0.01	1.30	<0.1	0.0	85.2	14.1	0.7
	Benzo(g,h,i)perylene	0.001	133.3	<0.1	0.0	0.0	87	13.4
	Benzo(k)fluoranthene	0.02	1.30	<0.1	0.0	93.7	5.9	0.3
	Carbazole	0.0004	133.3	<0.1	0.0	0.0	83	17.3
	Chrysene	0.01	1.30	<0.1	0.0	89.8	9.7	0.5
	Dibenz(a,h)anthracene	0.0003	1.30	<0.1	0.0	0.0	79	20.6
	Dibenzofuran	0.0004	133.3	<0.1	0.0	0.0	81	18.6
	Fluoranthene	0.01	125.0	<0.1	0.0	78.4	20.9	0.6
	Fluorene	0.0004	125.0	<0.1	0.0	0.0	84	15.8
	Indeno(1,2,3-cd)pyrene	0.02	1.30	<0.1	0.0	96.8	2.9	0.3
	Naphthalene	0.0003	140.0	<0.1	0.0	0.0	79	20.8
	N-nitrosodiphenylamine	0.0004	150	<0.1	0.0	0.0	82	18.2
	Phenanthrene	0.03	133.3	<0.1	0.0	95.3	4.5	0.2
	Pyrene	0.01	133.3	<0.1	0.0	82.4	17.0	0.6
	HAZARD INDEX			*0.06*	*0.0*	*90.8*	*8.6*	*0.6*
	Pesticides and PCBs							
	4,4'-DDD	0.00029	8.50	<0.1	21.8	62.6	15.3	0.3
	4,4'-DDE	0.00051	1.90	<0.1	74.7	19.5	5.7	0.2
	4,4'-DDT	0.00034	0.003	0.1	11.9	81.4	6.4	0.3
	Aldrin	0.00002	0.20	<0.1	86.6	0.0	11.5	1.9
	alpha-Chlordane	0.00006	2.14	<0.1	35.9	56.3	6.9	0.8
	Aroclor 1248	0.00028	0.98	<0.1	73.3	0.0	24	3.0
	Aroclor 1260	0.0008	0.35	<0.1	52.7	38.4	7.8	1.1
	beta-BHC	0.00002	4.00	<0.1	86.7	0.0	11	1.9
	delta-BHC	0.00002	1.60	<0.1	86.4	0.0	12	1.9
	Endosulfan I	0.00011	10.0	<0.1	18.5	75.3	5.8	0.4
	Endosulfan Sulfate	0.00005	10.0	<0.1	86.7	0.0	11.5	1.9
	Endrin Aldehyde	0.00021	0.30	<0.1	19.1	77.3	3.2	0.4
	gamma-Chlordane	0.00005	2.14	<0.1	44.9	48.0	6.3	0.8
	HAZARD INDEX			*0.12*	*13.2*	*80.1*	*6.5*	*0.3*
	Inorganics							
	Aluminum	17.9	110	0.16	4.4	54.3	41.2	0.1
	Antimony	0.00	0.13	<0.1	78.6	0.0	19	2.6
	Arsenic	0.09	5.14	<0.1	16.9	67.0	16.0	0.1
	Barium	1.68	208	<0.1	74.7	22.4	2.9	0.1
	Beryllium	0.00	0.66	<0.1	42.6	0.0	57	0.3
	Cadmium	0.02	1.45	<0.1	38.3	55.1	6.5	0.0
	Chromium	0.23	1.00	0.23	6.4	55.8	37.7	0.0
	Cobalt	0.09	5.00	<0.1	36.3	55.8	7.9	0.0
	Copper	1.92	47.0	<0.1	85.3	11.7	2.9	0.0
	Cyanide	1.92	68.7	<0.1	97.6	0.0	2.0	0.4
X	Iron	117	3.2	**36.8**	4.6	82.7	12.6	0.1
X	Lead	1.49	1.1	**1.32**	0.2	87.7	12.1	0.0
	Manganese	24.37	977.0	<0.1	35.4	63.1	1.4	0.1
	Mercury	0.00	0.0	0.18	39.6	44.3	16.0	0.2
	Nickel	0.05	77.4	<0.1	24.5	50.7	24.8	0.1
	Selenium	0.02	0.4	<0.1	68.3	27.6	4.0	0.1
	Silver	0.01	181.2	<0.1	96.5	0.0	3.5	0.1
	Thallium	0.01	0.1	<0.1	91.4	0.0	8.2	0.3
	Vanadium	0.12	11.4	<0.1	0.0	73.4	26.6	0.1
	Zinc	2.1	14.5	0.15	69.9	22.7	7.4	0.0
	HAZARD INDEX			*39.14*	*5.3*	*81.8*	*12.8*	*0.07*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-203
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR MALLARD (REFERENCE)

WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	TRV (mg/kg-day)	Total HQ	Percent Animal HQ	Percent Plant HQ	Percent Surface Sediment HQ	Percent Surface Water HQ
	Volatile Organics							
	2-Butanone	0.0004	12.1	<0.1	0.0	0.0	85	14.6
	Acetone	0.0003	1700	<0.1	0.0	0.0	100	0.0
	cis-1,2-Dichloroethene	0.0000	3114	<0.1	0.0	0.0	30	69.5
	Tetrachloroethene	0.0000	14.00	<0.1	0.0	0.0	30	69.8
	Trichloroethene	0.0000	7.00	<0.1	0.0	0.0	25	74.9
	HAZARD INDEX			*0.00004*	*0.0*	*0.0*	*75*	*25.2*
	Semivolatile Organics							
	2-Methylnaphthalene	0.000	143.7	<0.1	0.0	0.0	83	17.4
	Acenaphthylene	0.0006	133.3	<0.1	0.0	0.0	88	11.5
	Anthracene	0.001	1000	<0.1	0.0	0.0	89	11.4
	Benzo(a)anthracene	0.002	1.30	<0.1	0.0	0.0	97	3.2
	Benzo(a)pyrene	0.025	1.30	<0.1	0.0	92.4	7.3	0.3
	Benzo(b)fluoranthene	0.015	1.30	<0.1	0.0	85.4	14.2	0.5
	Benzo(g,h,i)perylene	0.001	133.3	<0.1	0.0	0.0	92	7.7
	Benzo(k)fluoranthene	0.042	1.30	<0.1	0.0	93.9	6.0	0.2
	Carbazole	0.000	133.3	<0.1	0.0	0.0	86	13.9
	Chrysene	0.025	1.30	<0.1	0.0	90.0	9.7	0.3
	Dibenz(a,h)anthracene	0.001	1.30	<0.1	0.0	0.0	86	14.1
	Dibenzofuran	0.001	133.3	<0.1	0.0	0.0	89	10.7
	Fluoranthene	0.018	125.0	<0.1	0.0	78.6	21.0	0.4
	Fluorene	0.001	125.0	<0.1	0.0	0.0	92	7.6
	Indeno(1,2,3-cd)pyrene	0.044	1.30	<0.1	0.0	96.9	2.9	0.2
	Naphthalene	0.001	140.0	<0.1	0.0	0.0	85	14.6
	N-nitrosodiphenylamine	0.001	150	<0.1	0.0	0.0	89	10.6
	Phenanthrene	0.049	133.3	<0.1	0.0	95.4	4.5	0.1
	Pyrene	0.017	133.3	<0.1	0.0	82.6	17.0	0.4
	HAZARD INDEX			*0.12*	*0.0*	*91.4*	*8.3*	*0.3*
	Pesticides and PCBs							
	4,4'-DDD	0.0006	8.50	<0.1	12.7	69.8	17.0	0.5
	4,4-DDE	0.0007	1.90	<0.1	64.9	26.9	7.8	0.4
	4,4'-DDT	0.0005	0.003	0.2	0.0	92.2	7.2	0.6
	Aldrin	0.00000	0.20	<0.1	0.0	0.0	65.0	35.0
	alpha-Chlordane	0.0001	2.14	<0.1	0.0	87.7	10.8	1.5
	Aroclor 1248	0.0001	0.98	<0.1	0.0	0.0	78	21.6
	Aroclor 1260	0.0015	0.35	<0.1	27.6	58.7	11.8	1.9
	beta-BHC	0.00000	4.00	<0.1	0.0	0.0	47	53.4
	delta-BHC	0.00001	1.60	<0.1	0.0	0.0	91	9.0
	Endosulfan I	0.0002	10.0	<0.1	0.0	92.6	7.1	0.4
	Endosulfan Sulfate	0.0000	10.0	<0.1	0.0	0.0	74.2	25.8
	Endrin Aldehyde	0.0001	0.30	<0.1	0.0	94.2	3.9	1.9
	gamma-Chlordane	0.0000	2.14	<0.1	0.0	88.3	11.6	0.1
	HAZARD INDEX			*0.19*	*0.8*	*91.1*	*7.5*	*0.6*
	Inorganics							
	Aluminum	20.7	110	0.2	4.0	54.5	41.3	0.2
	Antimony	0.00	0.13	<0.1	0.0	0.0	69	30.6
	Arsenic	0.12	5.14	<0.1	0.0	80.6	19.3	0.2
	Barium	2.04	208	<0.1	72.9	23.9	3.1	0.1
	Beryllium	0.001	0.66	<0.1	0.0	0.0	100	0.5
	Cadmium	0.03	1.45	<0.1	29.1	63.4	7.5	0.1
	Chromium	0.88	1.00	0.9	1.7	58.7	39.6	0.0
	Cobalt	0.11	5.00	<0.1	31.6	59.7	8.5	0.2
	Copper	2.14	47.0	<0.1	79.9	16.1	4.0	0.0
	Cyanide	0.00	68.7	<0.1	0.0	0.0	100.0	0.0
X	Iron	149	3.19	**46.8**	4.3	83.0	12.6	0.1
X	Lead	2.30	1.13	**2.0**	0.0	87.8	12.1	0.0
	Manganese	38.0	977	<0.1	23.1	75.1	1.7	0.1
	Mercury	0.00	0.01	0.2	0.0	73.3	26.4	0.3
	Nickel	0.05	77.4	<0.1	0.0	66.0	32.2	1.7
	Selenium	0.03	0.40	<0.1	63.3	31.9	4.7	0.1
	Silver	0.02	181	<0.1	94.2	0.0	5.7	0.1
	Thallium	0.00	0.07	<0.1	0.0	0.0	96.8	3.2
	Vanadium	0.16	11.4	<0.1	0.0	73.3	26.6	0.1
	Zinc	2.4	14.5	0.2	61.8	28.8	9.4	0.0
	HAZARD INDEX			*50.5*	*4.4*	*82.2*	*13.2*	*0.1*

NOTES:
HQ = Hazard quotient
TRV = Toxicity Reference Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (plant and animal), sediment, and water.

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TABLE 4-204
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 20
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.020	26.59	<0.1	90.7	6.6	2.7
	Acetone	0.062	3736	<0.1	92.3	6.8	0.9
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8.3	<0.1			
	HAZARD INDEX			*0.00*	*88.5*	*6.4*	*5.1*
	Semivolatile Organics						
	2-Methylnaphthalene	NA	170.9	<0.1			
	Acenaphthylene	NA	158.5	<0.1			
	Anthracene	NA	1189.2	<0.1			
	Benzo(a)anthracene	0.23	1.55	0.15	94.2	5.6	0.2
	Benzo(a)pyrene	0.22	1.55	0.14	94.3	5.5	0.3
	Benzo(b)fluoranthene	0.64	1.55	0.41	94.5	5.4	0.1
	Benzo(g,h,i)perylene	NA	158.5	<0.1			
	Benzo(k)fluoranthene	NA	1.5	<0.1			
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.32	1.55	0.21	94.3	5.6	0.2
	Dibenz(a,h)anthracene	NA	1.5	<0.1			
	Dibenzofuran	NA	158.5	<0.1			
	Fluoranthene	0.49	148.65	<0.1	94.3	5.6	0.1
	Fluorene	NA	148.7	<0.1			
	Indeno(1,2,3-cd)pyrene	0.20	1.55	0.13	94.6	5.1	0.3
	Naphthalene	NA	166.5	<0.1			
	N-nitrosodiphenylamine	NA	329.7	<0.1			
	Phenanthrene	0.16	158.52	<0.1	93.9	5.8	0.3
	Pyrene	0.43	158.52	<0.1	94.2	5.6	0.1
	HAZARD INDEX			*1.05*	*94.3*	*5.4*	*0.2*
	Pesticides and PCBs						
	4,4'-DDD	0.0054	18.68	<0.1	94.3	5.5	0.2
	4,4'-DDE	0.0056	2.26	<0.1	94.3	5.5	0.2
	4,4'-DDT	NA	1.8	<0.1			
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.0080	5.45	<0.1	94.5	5.4	0.1
	Aroclor 1248	NA	1.5	<0.1			
	Aroclor 1254	NA	0.081	<0.1			
	Aroclor 1260	NA	0.76	<0.1			
	beta-BHC	NA	8.8	<0.1			
	delta-BHC	NA	3.5	<0.1			
	Endosulfan I	0.008	3.30	<0.1	94.1	5.9	0.1
	Endosulfan Sulfate	NA	3.3	<0.1			
	Endrin Aldehyde	NA	0.11	<0.1			
	gamma-Chlordane	0.0027	5.45	<0.1	94.4	5.4	0.2
	HAZARD INDEX			*0.01*	*76.4*	*4.6*	*19.0*
	Inorganics						
X	Aluminum	563	58.27	9.66	45.1	54.8	0.0
	Antimony	0.12	0.15	0.84	54.7	45.2	0.1
X	Arsenic	2.3	0.15	15.29	17.6	82.1	0.2
	Barium	2.5	11.84	0.21	46.4	53.2	0.3
	Beryllium	0.049	1.45	<0.1	54.8	45.2	0.0
X	Cadmium	2.5	2.12	1.17	91.9	8.1	0.0
X	Chromium	20	19.78	1.00	1.1	98.9	0.0
	Cobalt	1.0	10.99	<0.1	54.7	45.2	0.0
	Copper	13	33.43	0.40	7.4	92.5	0.0
	Cyanide	NA	142	<0.1			
X	Iron	813	7.01	115.98	47.9	52.0	0.1
	Lead	17	17.58	0.94	34.5	65.5	0.0
	Manganese	10	193.41	<0.1	11.6	87.4	1.0
	Mercury	0.045	0.07	0.64	36.9	63.0	0.1
	Nickel	1.0	87.91	<0.1	42.4	57.6	0.1
	Selenium	0.23	0.44	0.53	56.0	43.9	0.1
	Silver	0.044	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.12	0.16	0.73	54.7	45.2	0.1
X	Vanadium	2.5	0.43	5.75	54.8	45.2	0.0
	Zinc	70	351.65	0.20	49.7	50.2	0.0
	HAZARD INDEX			*153.53*	*44.8*	*55.1*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore prey dose could not be calculated.

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TABLE 4-205
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 21
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.0065	6844	<0.1	90.8	7.3	2.0
	Tetrachloroethene	0.0066	16.65	<0.1	91.3	7.1	1.7
	Trichloroethene	0.0034	8.32	<0.1	89.8	6.9	3.3
	HAZARD INDEX			*0.00*	*88.2*	*6.8*	*4.9*
	Semivolatile Organics						
	2-Methylnaphthalene	0.026	170.89	<0.1	91.1	6.7	2.1
	Acenaphthylene	0.007	158.52	<0.1	86.3	6.3	7.4
	Anthracene	0.08	1189.21	<0.1	92.6	6.7	0.7
	Benzo(a)anthracene	0.08	1.55	<0.1	92.9	6.4	0.7
	Benzo(a)pyrene	0.17	1.55	0.11	93.3	6.3	0.3
	Benzo(b)fluoranthene	0.32	1.55	0.21	93.6	6.2	0.2
	Benzo(g,h,i)perylene	0.14	158.52	<0.1	93.6	6.1	0.4
	Benzo(k)fluoranthene	0.0073	1.55	<0.1	86.7	5.7	7.6
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.18	1.55	0.12	93.3	6.4	0.3
	Dibenz(a,h)anthracene	0.047	1.55	<0.1	92.5	6.3	1.2
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	0.31	148.65	<0.1	93.3	6.5	0.2
	Fluorene	0.044	148.65	<0.1	92.0	6.7	1.2
	Indeno(1,2,3-cd)pyrene	0.13	1.55	<0.1	93.6	6.0	0.4
	Naphthalene	0.34	166.49	<0.1	92.8	7.0	0.2
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	0.11	158.52	<0.1	92.8	6.7	0.5
	Pyrene	0.27	158.52	<0.1	93.3	6.5	0.2
	HAZARD INDEX			*0.61*	*93.3*	*6.3*	*0.4*
	Pesticides and PCBs						
	4,4'-DDD	0.0058	18.68	<0.1	93.5	6.4	0.2
	4,4'-DDE	0.0060	2.26	<0.1	93.4	6.4	0.2
	4,4'-DDT	0.0009	1.76	<0.1	92.5	6.2	1.3
	Aldrin	0.00016	0.44	<0.1	90.6	6.0	3.4
	alpha-Chlordane	0.010	5.45	<0.1	93.7	6.3	0.0
	Aroclor 1248	0.047	1.55	<0.1	93.5	6.3	0.2
	Aroclor 1254	0.00043	0.08	<0.1	69.6	4.6	25.8
	Aroclor 1260	0.08	0.76	0.11	93.7	6.2	0.1
	beta-BHC	0.00015	8.79	<0.1	89.7	6.6	3.7
	delta-BHC	0.00033	3.52	<0.1	91.6	6.7	1.7
	Endosulfan I	0.0064	3.30	<0.1	93.1	6.8	0.1
	Endosulfan Sulfate	0.00030	3.30	<0.1	89.6	6.7	3.7
	Endrin Aldehyde	0.0017	0.11	<0.1	93.0	6.4	0.6
	gamma-Chlordane	0.0065	5.45	<0.1	93.6	6.3	0.1
	HAZARD INDEX			*0.17*	*92.8*	*6.2*	*1.0*
	Inorganics						
X	Aluminum	307	58.27	5.28	45.1	54.8	0.0
	Antimony	0.055	0.15	0.37	54.6	45.1	0.3
X	Arsenic	1.4	0.15	9.25	20.0	79.6	0.4
	Barium	3.0	11.84	0.25	46.4	53.3	0.3
	Beryllium	0.025	1.45	<0.1	54.7	45.2	0.1
X	Cadmium	2.6	2.12	1.25	91.8	8.2	0.0
X	Chromium	30	19.78	1.51	0.7	99.3	0.0
	Cobalt	0.63	10.99	<0.1	54.7	45.2	0.1
	Copper	6.5	33.43	0.19	12.5	87.5	0.1
	Cyanide	NA	142	<0.1			
X	Iron	521	7.01	74.32	47.9	52.0	0.1
	Lead	10	17.58	0.59	36.7	63.2	0.0
	Manganese	3.2	193.41	<0.1	16.0	80.8	3.3
X	Mercury	0.14	0.07	1.96	14.3	85.6	0.0
	Nickel	0.88	87.91	<0.1	54.1	45.8	0.1
	Selenium	0.11	0.44	0.24	62.0	37.8	0.2
	Silver	0.0082	398.25	<0.1	54.4	44.9	0.7
	Thallium	0.0062	0.16	<0.1	53.2	44.0	2.8
X	Vanadium	1.5	0.43	3.42	54.8	45.2	0.0
	Zinc	81	351.65	0.23	45.9	54.0	0.0
	HAZARD INDEX			*98.98*	*44.4*	*55.4*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore prey dose could not be calculated.

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TABLE 4-206
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.0021	26.59	<0.1	66.5	7.6	25.9
	Acetone	0.14	3736.31	<0.1	89.2	10.4	0.4
	cis-1,2-Dichloroethene	0.009	6844.04	<0.1	89.1	9.5	1.4
	Tetrachloroethene	0.15	16.65	<0.1	90.5	9.4	0.1
	Trichloroethene	0.034	8.32	<0.1	90.3	9.4	0.3
	HAZARD INDEX			*0.01*	*90.3*	*9.4*	*0.3*
	Semivolatile Organics						
	2-Methylnaphthalene	0.033	170.89	<0.1	89.5	8.9	1.6
	Acenaphthylene	0.034	158.52	<0.1	89.6	8.8	1.6
	Anthracene	0.036	1189.21	<0.1	89.8	8.7	1.5
	Benzo(a)anthracene	0.049	1.55	<0.1	90.5	8.4	1.1
	Benzo(a)pyrene	0.048	1.55	<0.1	90.6	8.3	1.2
	Benzo(b)fluoranthene	0.06	1.55	<0.1	91.0	8.1	0.9
	Benzo(g,h,i)perylene	0.047	158.52	<0.1	90.9	7.9	1.2
	Benzo(k)fluoranthene	0.06	1.55	<0.1	91.1	8.0	0.8
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.054	1.55	<0.1	90.6	8.4	1.0
	Dibenz(a,h)anthracene	0.037	1.55	<0.1	90.3	8.2	1.5
	Dibenzofuran	0.049	158.52	<0.1	90.1	8.8	1.1
	Fluoranthene	0.07	148.65	<0.1	90.7	8.5	0.8
	Fluorene	0.034	148.65	<0.1	89.6	8.8	1.6
	Indeno(1,2,3-cd)pyrene	0.049	1.55	<0.1	91.1	7.8	1.1
	Naphthalene	0.033	166.49	<0.1	89.3	9.0	1.7
	N-nitrosodiphenylamine	0.047	329.67	<0.1	89.6	9.2	1.2
	Phenanthrene	0.06	158.52	<0.1	90.3	8.7	1.0
	Pyrene	0.06	158.52	<0.1	90.6	8.5	0.9
	HAZARD INDEX			*0.24*	*90.8*	*8.2*	*1.1*
	Pesticides and PCBs						
	4,4'-DDD	0.0008	18.68	<0.1	90.4	8.2	1.4
	4,4'-DDE	0.0026	2.26	<0.1	91.2	8.4	0.4
	4,4'-DDT	0.00047	1.76	<0.1	89.6	8.1	2.3
	Aldrin	0.00018	0.44	<0.1	89.0	7.9	3.1
	alpha-Chlordane	0.00023	5.45	<0.1	89.9	8.1	2.0
	Aroclor 1248	0.0038	1.55	<0.1	89.1	8.0	2.9
	Aroclor 1254	0.0035	0.08	<0.1	88.9	7.9	3.1
	Aroclor 1260	0.0049	0.76	<0.1	89.8	7.9	2.2
	beta-BHC	0.00016	8.79	<0.1	87.9	8.7	3.4
	delta-BHC	0.00017	3.52	<0.1	88.1	8.6	3.2
	Endosulfan I	0.00035	3.30	<0.1	89.6	8.8	1.6
	Endosulfan Sulfate	0.00032	3.30	<0.1	87.8	8.8	3.5
	Endrin Aldehyde	0.00049	0.11	<0.1	89.5	8.3	2.2
	gamma-Chlordane	0.00018	5.45	<0.1	89.4	8.0	2.6
	HAZARD INDEX			*0.06*	*89.1*	*8.0*	*2.9*
	Inorganics						
X	Aluminum	106	58.27	1.82	45.1	54.8	0.1
X	Antimony	1.9	0.15	12.83	54.8	45.2	0.0
X	Arsenic	0.20	0.15	1.35	31.0	66.3	2.7
	Barium	0.97	11.84	<0.1	46.2	53.0	0.9
	Beryllium	0.013	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.26	2.12	0.12	95.2	4.8	0.0
	Chromium	0.60	19.78	<0.1	47.8	51.2	0.9
	Cobalt	0.077	10.99	<0.1	54.5	45.0	0.4
	Copper	0.65	33.43	<0.1	55.9	43.4	0.7
	Cyanide	0.018	141.90	<0.1	53.1	43.9	3.0
X	Iron	101	7.01	14.43	47.7	51.8	0.5
X	Lead	113	17.58	6.44	26.2	73.8	0.0
	Manganese	1.2	193.41	<0.1	19.9	71.6	8.5
	Mercury	0.014	0.07	0.20	86.4	13.3	0.3
	Nickel	0.79	87.91	<0.1	87.8	12.1	0.1
	Selenium	0.12	0.44	0.27	61.2	38.6	0.2
	Silver	0.033	398.25	<0.1	54.7	45.2	0.2
	Thallium	0.012	0.16	<0.1	54.0	44.6	1.4
X	Vanadium	0.85	0.43	1.98	54.7	45.2	0.0
	Zinc	11	351.65	<0.1	92.1	7.7	0.3
	HAZARD INDEX			*39.71*	*46.6*	*53.1*	*0.3*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore prey dose could not be calculated.

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TABLE 4-207
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION BW
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.08	6844.04	<0.1	93.3	6.5	0.2
	Tetrachloroethene	0.03	16.65	<0.1	93.3	6.3	0.4
	Trichloroethene	0.01	8.32	<0.1	92.7	6.2	1.1
	HAZARD INDEX			*0.00*	*92.5*	*6.2*	*1.3*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0032	170.89	<0.1	77.8	5.0	17.2
	Acenaphthylene	0.00	158.52	<0.1	82.4	5.3	12.3
	Anthracene	0.01	1189.21	<0.1	90.6	5.7	3.7
	Benzo(a)anthracene	0.12	1.55	<0.1	93.9	5.6	0.4
	Benzo(a)pyrene	0.22	1.55	0.14	94.2	5.6	0.2
	Benzo(b)fluoranthene	0.34	1.55	0.22	94.4	5.5	0.2
	Benzo(g,h,i)perylene	0.15	158.52	<0.1	94.3	5.3	0.4
	Benzo(k)fluoranthene	0.16	1.55	0.11	94.3	5.4	0.3
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.19	1.55	0.12	94.0	5.7	0.3
	Dibenz(a,h)anthracene	0.07	1.55	<0.1	93.7	5.6	0.8
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	0.26	148.65	<0.1	94.1	5.7	0.2
	Fluorene	0.01	148.65	<0.1	89.0	5.7	5.4
	Indeno(1,2,3-cd)pyrene	0.17	1.55	0.11	94.4	5.2	0.3
	Naphthalene	0.01	166.49	<0.1	84.9	5.6	9.5
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	0.12	158.52	<0.1	93.6	5.9	0.5
	Pyrene	0.21	158.52	<0.1	94.0	5.8	0.3
	HAZARD INDEX			*0.83*	*94.2*	*5.5*	*0.3*
	Pesticides and PCBs						
	4,4'-DDD	0.0038	18.68	<0.1	94.1	5.6	0.3
	4,4'-DDE	0.0009	2.26	<0.1	93.2	5.6	1.2
	4,4'-DDT	0.0003	1.76	<0.1	91.0	5.4	3.7
	Aldrin	0.000025	0.44	<0.1	73.4	4.3	22.3
	alpha-Chlordane	0.0005	5.45	<0.1	93.6	5.5	0.9
	Aroclor 1248	0.0063	1.55	<0.1	92.8	5.5	1.7
	Aroclor 1254	0.0005	0.08	<0.1	72.9	4.2	22.9
	Aroclor 1260	0.0133	0.76	<0.1	93.8	5.4	0.8
	beta-BHC	0.000023	8.79	<0.1	71.3	4.6	24.1
	delta-BHC	0.000023	3.52	<0.1	71.5	4.6	23.9
	Endosulfan I	0.000023	3.30	<0.1	71.5	4.6	23.9
	Endosulfan Sulfate	0.0000	3.30	<0.1	70.6	4.6	24.8
	Endrin Aldehyde	0.0004	0.11	<0.1	91.7	5.5	2.7
	gamma-Chlordane	0.0004	5.45	<0.1	93.3	5.5	1.2
	HAZARD INDEX			*0.03*	*89.5*	*5.2*	*5.3*
	Inorganics						
X	Aluminum	418.0	58.27	7.17	45.1	54.8	0.0
X	Antimony	0.6	0.15	4.12	54.8	45.2	0.0
X	Arsenic	8.9	0.15	59.46	12.4	87.6	0.1
	Barium	3.0	11.84	0.25	46.4	53.3	0.3
	Beryllium	0.038	1.45	<0.1	54.7	45.2	0.0
	Cadmium	1.7	2.12	0.82	92.5	7.5	0.0
	Chromium	19.0	19.78	0.96	1.2	98.8	0.0
	Cobalt	1.1	10.99	<0.1	54.7	45.2	0.0
	Copper	12.1	33.43	0.36	8.0	92.0	0.0
	Cyanide	NA	142	<0.1			
X	Iron	2650.0	7.01	377.97	47.9	52.1	0.0
	Lead	11.7	17.58	0.67	36.1	63.9	0.0
	Manganese	14.4	193.41	<0.1	10.5	88.8	0.7
X	Mercury	0.1	0.07	1.43	18.8	81.2	0.0
	Nickel	0.9	87.91	<0.1	51.0	49.0	0.1
	Selenium	0.3	0.44	0.62	54.9	45.1	0.1
	Silver	0.040	398.25	<0.1	54.7	45.2	0.1
X	Thallium	0.2	0.16	1.36	54.7	45.2	0.1
X	Vanadium	2.2	0.43	5.13	54.8	45.2	0.0
	Zinc	57.4	351.65	0.16	54.8	45.2	0.0
	HAZARD INDEX			*460.70*	*43.3*	*56.7*	*0.0*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-208
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	267.7	58.27	4.59	45.1	54.8	0.0
	Antimony	0.034	0.15	0.23	54.6	45.1	0.4
X	Arsenic	0.4	0.15	2.42	27.5	71.7	0.8
	Barium	0.9	11.84	<0.1	46.2	53.0	0.8
	Beryllium	0.028	1.45	<0.1	54.7	45.2	0.0
	Cadmium	1.0	2.12	0.46	93.5	6.5	0.0
	Chromium	2.9	19.78	0.15	8.5	91.5	0.0
	Cobalt	0.2	10.99	<0.1	54.7	45.2	0.1
	Copper	5.6	33.43	0.17	13.8	86.2	0.0
	Cyanide	NA	142	<0.1			
X	Iron	262.5	7.01	37.44	47.9	52.0	0.1
	Lead	6.4	17.58	0.37	39.0	60.9	0.0
	Manganese	5.0	193.41	<0.1	14.1	83.3	2.6
	Mercury	0.035	0.07	0.50	45.6	54.3	0.1
	Nickel	0.8	87.91	<0.1	85.4	14.6	0.0
	Selenium	0.1	0.44	0.27	61.2	38.7	0.1
	Silver	0.0090	398.25	<0.1	54.3	44.8	0.9
	Thallium	0.029	0.16	0.17	54.4	44.9	0.7
X	Vanadium	1.5	0.43	3.41	54.8	45.2	0.0
	Zinc	23.8	351.65	<0.1	78.0	21.9	0.1
	HAZARD INDEX			*50.40*	*47.4*	*52.5*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-209
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	100	58.27	1.72	45.1	54.8	0.0
	Antimony	0.042	0.15	0.28	54.6	45.1	0.3
X	Arsenic	0.25	0.15	1.65	30.0	68.9	1.1
	Barium	1.8	11.84	0.15	46.4	53.2	0.4
	Beryllium	0.0078	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.65	2.12	0.30	94.1	5.9	0.0
	Chromium	1.6	19.78	<0.1	16.6	83.3	0.1
	Cobalt	0.12	10.99	<0.1	54.7	45.1	0.2
	Copper	1.4	33.43	<0.1	34.9	65.0	0.1
	Cyanide	NA	142	<0.1			
X	Iron	140	7.01	20.04	47.8	52.0	0.2
	Lead	2.6	17.58	0.15	43.6	56.3	0.0
	Manganese	1.0	193.41	<0.1	20.1	67.2	12.7
	Mercury	0.016	0.07	0.22	81.0	18.9	0.2
	Nickel	0.78	87.91	<0.1	86.9	13.0	0.0
	Selenium	0.054	0.44	0.12	66.8	32.9	0.3
	Silver	NA	398	<0.1			
	Thallium	0.012	0.16	<0.1	53.9	44.5	1.6
X	Vanadium	0.73	0.43	1.70	54.8	45.2	0.0
	Zinc	19	351.65	<0.1	83.5	16.5	0.1
	HAZARD INDEX			*26.62*	*47.9*	*51.9*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-210
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	209	58.27	3.58	45.1	54.8	0.0
	Antimony	0.042	0.15	0.28	54.6	45.1	0.3
X	Arsenic	2.1	0.15	14.00	18.0	81.8	0.1
	Barium	1.2	11.84	0.10	46.3	53.1	0.6
	Beryllium	0.015	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.3	2.12	0.62	93.0	7.0	0.0
	Chromium	5.9	19.78	0.30	4.0	95.9	0.0
	Cobalt	0.53	10.99	<0.1	54.7	45.2	0.0
	Copper	4.0	33.43	0.12	17.4	82.6	0.0
	Cyanide	NA	142	<0.1			
X	Iron	735	7.01	104.88	47.9	52.1	0.0
	Lead	4.1	17.58	0.23	41.3	58.7	0.0
	Manganese	4.3	193.41	<0.1	14.7	82.2	3.1
	Mercury	0.031	0.07	0.43	50.6	49.3	0.1
	Nickel	0.82	87.91	<0.1	61.7	38.3	0.0
	Selenium	0.12	0.44	0.27	61.1	38.8	0.1
	Silver	0.014	398.25	<0.1	54.4	45.0	0.6
	Thallium	0.019	0.16	0.12	54.2	44.8	1.0
X	Vanadium	1.3	0.43	3.00	54.8	45.2	0.0
	Zinc	40	351.65	0.11	64.5	35.5	0.0
	HAZARD INDEX			*128.13*	*44.9*	*55.1*	*0.0*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-211
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	213	58.27	3.65	45.1	54.8	0.0
	Antimony	0.097	0.15	0.65	54.7	45.2	0.1
X	Arsenic	0.91	0.15	6.05	22.2	77.5	0.3
	Barium	1.4	11.84	0.12	46.3	53.2	0.5
	Beryllium	0.017	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.79	2.12	0.37	93.8	6.2	0.0
	Chromium	2.3	19.78	0.12	10.9	89.0	0.1
	Cobalt	0.24	10.99	<0.1	54.7	45.2	0.1
	Copper	2.9	33.43	<0.1	21.7	78.2	0.1
	Cyanide	NA	142	<0.1			
X	Iron	569	7.01	81.10	47.9	52.1	0.0
	Lead	4.4	17.58	0.25	41.0	59.0	0.0
	Manganese	5.9	193.41	<0.1	13.5	84.3	2.2
	Mercury	0.024	0.07	0.33	61.7	38.1	0.1
	Nickel	0.96	87.91	<0.1	46.8	53.2	0.0
	Selenium	0.10	0.44	0.23	62.5	37.4	0.2
	Silver	0.036	398.25	<0.1	54.6	45.1	0.2
	Thallium	0.031	0.16	0.19	54.4	45.0	0.6
X	Vanadium	1.5	0.43	3.52	54.8	45.2	0.0
	Zinc	45	351.65	0.13	61.4	38.5	0.0
	HAZARD INDEX			*96.87*	*46.7*	*53.3*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-212
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	130	58.27	2.23	45.1	54.8	0.0
	Antimony	0.025	0.15	0.17	54.5	45.0	0.5
X	Arsenic	0.27	0.15	1.81	29.4	69.6	1.0
	Barium	0.63	11.84	<0.1	46.0	52.8	1.1
	Beryllium	0.0071	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.15	2.12	<0.1	95.8	4.1	0.1
	Chromium	0.97	19.78	<0.1	28.1	71.7	0.1
	Cobalt	0.15	10.99	<0.1	54.7	45.2	0.1
	Copper	0.92	33.43	<0.1	46.0	53.9	0.2
	Cyanide	NA	142	<0.1			
X	Iron	240	7.01	34.22	47.9	52.0	0.1
	Lead	1.2	17.58	<0.1	47.7	52.2	0.1
	Manganese	3.0	193.41	<0.1	16.1	79.6	4.3
	Mercury	0.014	0.07	0.21	85.0	14.9	0.2
	Nickel	0.77	87.91	<0.1	84.4	15.6	0.0
	Selenium	0.024	0.44	<0.1	72.3	27.0	0.7
	Silver	0.0032	398.25	<0.1	53.4	44.1	2.5
	Thallium	0.022	0.16	0.13	54.3	44.8	0.9
X	Vanadium	0.62	0.43	1.45	54.7	45.2	0.0
	Zinc	14	351.65	<0.1	88.7	11.3	0.1
	HAZARD INDEX			*40.62*	*47.5*	*52.3*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-213
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	162	58.27	2.78	45.1	54.8	0.0
	Antimony	0.047	0.15	0.32	54.6	45.1	0.3
X	Arsenic	0.80	0.15	5.37	22.9	76.8	0.3
	Barium	0.94	11.84	<0.1	46.2	53.0	0.8
	Beryllium	0.0075	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.5	2.12	0.70	92.8	7.2	0.0
	Chromium	3.7	19.78	0.19	6.6	93.4	0.0
	Cobalt	0.25	10.99	<0.1	54.7	45.2	0.1
	Copper	2.8	33.43	<0.1	22.1	77.9	0.1
	Cyanide	NA	142	<0.1			
X	Iron	301	7.01	42.97	47.9	52.0	0.1
	Lead	3.0	17.58	0.17	43.0	57.0	0.0
	Manganese	1.4	193.41	<0.1	19.2	71.3	9.5
	Mercury	0.016	0.07	0.22	81.5	18.3	0.2
	Nickel	0.78	87.91	<0.1	70.6	29.4	0.0
	Selenium	0.053	0.44	0.12	67.1	32.6	0.3
	Silver	0.0036	398.25	<0.1	53.5	44.2	2.3
	Thallium	0.088	0.16	0.54	54.6	45.1	0.2
X	Vanadium	1.4	0.43	3.38	54.8	45.2	0.0
	Zinc	45	351.65	0.13	61.2	38.8	0.0
	HAZARD INDEX			*57.08*	*46.5*	*53.4*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-214
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION DA
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	157	58.27	2.70	45.1	54.8	0.0
	Antimony	0.028	0.15	0.19	54.5	45.0	0.5
X	Arsenic	0.81	0.15	5.40	22.8	76.8	0.3
	Barium	0.82	11.84	<0.1	46.2	53.0	0.9
	Beryllium	0.0060	1.45	<0.1	54.7	45.2	0.2
	Cadmium	0.33	2.12	0.16	94.9	5.0	0.0
	Chromium	2.6	19.78	0.13	9.5	90.4	0.1
	Cobalt	0.25	10.99	<0.1	54.7	45.2	0.1
	Copper	2.4	33.43	<0.1	24.9	75.1	0.1
	Cyanide	NA	142	<0.1			
X	Iron	400	7.01	57.09	47.9	52.0	0.1
	Lead	2.9	17.58	0.17	43.1	56.9	0.0
	Manganese	11	193.41	<0.1	11.3	87.5	1.2
	Mercury	0.030	0.07	0.43	51.1	48.8	0.1
	Nickel	0.77	87.91	<0.1	81.9	18.1	0.0
	Selenium	0.042	0.44	<0.1	68.6	31.0	0.4
	Silver	0.0041	398.25	<0.1	53.7	44.3	2.0
	Thallium	0.040	0.16	0.25	54.5	45.0	0.5
X	Vanadium	0.73	0.43	1.70	54.8	45.2	0.0
	Zinc	20	351.65	<0.1	82.6	17.4	0.1
	HAZARD INDEX			*68.59*	*46.1*	*53.8*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-215
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	150	58.27	2.57	45.1	54.8	0.1
	Antimony	0.025	0.15	0.17	54.4	45.0	0.6
X	Arsenic	1.3	0.15	8.78	20.2	79.3	0.4
	Barium	0.96	11.84	<0.1	46.2	53.0	0.9
	Beryllium	0.014	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.33	2.12	0.16	94.9	5.0	0.0
	Chromium	2.6	19.78	0.13	9.8	89.9	0.2
	Cobalt	0.18	10.99	<0.1	54.7	45.2	0.2
	Copper	3.1	33.43	<0.1	20.6	79.3	0.2
	Cyanide	NA	142	<0.1			
X	Iron	461	7.01	65.76	47.9	52.0	0.1
	Lead	3.5	17.58	0.20	42.2	57.8	0.1
	Manganese	2.6	193.41	<0.1	16.9	79.1	4.0
	Mercury	0.049	0.07	0.70	34.2	65.7	0.1
	Nickel	0.77	87.91	<0.1	82.6	17.3	0.1
	Selenium	0.064	0.44	0.14	65.7	34.0	0.3
	Silver	0.041	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.026	0.16	0.16	54.4	44.9	0.7
X	Vanadium	0.65	0.43	1.51	54.7	45.2	0.1
	Zinc	22	351.65	<0.1	80.3	19.6	0.1
	HAZARD INDEX			*80.56*	*44.8*	*55.0*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-216
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION JY
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8	<0.1			
	HAZARD INDEX			*0.00*	*0.0*	*0.0*	*100.0*
	Semivolatile Organics						
	2-Methylnaphthalene	NA	171	<0.1			
	Acenaphthylene	NA	159	<0.1			
	Anthracene	NA	1189	<0.1			
	Benzo(a)anthracene	NA	2	<0.1			
	Benzo(a)pyrene	NA	2	<0.1			
	Benzo(b)fluoranthene	NA	2	<0.1			
	Benzo(g,h,i)perylene	NA	159	<0.1			
	Benzo(k)fluoranthene	NA	2	<0.1			
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	NA	2	<0.1			
	Dibenz(a,h)anthracene	NA	2	<0.1			
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	NA	149	<0.1			
	Fluorene	NA	149	<0.1			
	Indeno(1,2,3-cd)pyrene	NA	2	<0.1			
	Naphthalene	NA	166	<0.1			
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	NA	159	<0.1			
	Pyrene	NA	159	<0.1			
	HAZARD INDEX			*0.00*	*0.0*	*0.0*	*100.0*
	Pesticides and PCBs						
	4,4'-DDD	NA	19	<0.1			
	4,4'-DDE	NA	2	<0.1			
	4,4'-DDT	NA	2	<0.1			
	Aldrin	NA	0	<0.1			
	alpha-Chlordane	NA	5	<0.1			
	Aroclor 1248	0.0514	1.55	<0.1	96.9	2.9	0.2
X	Aroclor 1254	0.3872	0.08	4.79	97.1	2.9	0.0
	Aroclor 1260	0.4280	0.76	0.56	97.1	2.9	0.0
	beta-BHC	NA	9	<0.1			
	delta-BHC	NA	4	<0.1			
	Endosulfan I	NA	3	<0.1			
	Endosulfan Sulfate	NA	3	<0.1			
	Endrin Aldehyde	NA	0	<0.1			
	gamma-Chlordane	NA	5	<0.1			
	HAZARD INDEX			*5.39*	*97.1*	*2.9*	*0.0*
	Inorganics						
X	Aluminum	216	58.27	3.71	45.1	54.8	0.0
	Antimony	0.15	0.15	0.99	54.7	45.2	0.1
X	Arsenic	1.2	0.15	7.74	20.9	78.6	0.5
	Barium	2.9	11.84	0.25	46.4	53.3	0.3
	Beryllium	0.013	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.8	2.12	0.86	92.4	7.6	0.0
	Chromium	11	19.78	0.54	2.2	97.8	0.1
	Cobalt	0.34	10.99	<0.1	54.7	45.2	0.1
	Copper	5.4	33.43	0.16	14.1	85.8	0.1
	Cyanide	NA	142	<0.1			
X	Iron	674	7.01	96.11	47.9	52.0	0.1
	Lead	10	17.58	0.58	36.8	63.2	0.0
	Manganese	4.4	193.41	<0.1	14.7	82.9	2.4
	Mercury	0.024	0.07	0.34	60.6	39.2	0.2
	Nickel	1.1	87.91	<0.1	39.8	60.1	0.1
	Selenium	0.10	0.44	0.23	62.5	37.4	0.2
	Silver	0.019	398.25	<0.1	54.6	45.1	0.3
	Thallium	0.069	0.16	0.42	54.6	45.1	0.2
X	Vanadium	1.3	0.43	3.11	54.7	45.2	0.0
	Zinc	53	351.65	0.15	57.1	42.8	0.1
	HAZARD INDEX			*115.27*	*46.3*	*53.6*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-217
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	104	58.27	1.78	45.1	54.8	0.1
	Antimony	0.024	0.15	0.16	54.4	45.0	0.6
X	Arsenic	0.91	0.15	6.06	22.2	77.3	0.6
	Barium	0.88	11.84	<0.1	46.1	52.9	0.9
	Beryllium	0.0075	1.45	<0.1	54.7	45.1	0.2
	Cadmium	0.26	2.12	0.12	95.2	4.7	0.0
	Chromium	1.5	19.78	<0.1	17.8	81.8	0.4
	Cobalt	0.16	10.99	<0.1	54.7	45.1	0.2
	Copper	1.7	33.43	<0.1	30.8	69.0	0.3
	Cyanide	NA	142	<0.1			
X	Iron	409	7.01	58.31	47.9	52.0	0.1
	Lead	1.9	17.58	0.11	45.1	54.7	0.1
	Manganese	4.6	193.41	<0.1	14.5	83.2	2.3
	Mercury	0.025	0.07	0.35	59.3	40.5	0.2
	Nickel	0.79	87.91	<0.1	87.0	12.9	0.1
	Selenium	0.038	0.44	<0.1	69.3	30.2	0.5
	Silver	0.030	398.25	<0.1	54.7	45.2	0.2
	Thallium	0.025	0.16	0.15	54.4	44.9	0.7
X	Vanadium	0.44	0.43	1.03	54.7	45.2	0.1
	Zinc	20	351.65	<0.1	82.0	17.9	0.1
	HAZARD INDEX			*68.48*	*45.8*	*54.0*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-218
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	126	58.27	2.17	45.1	54.8	0.0
	Antimony	0.024	0.15	0.16	54.5	45.0	0.6
X	Arsenic	0.35	0.15	2.34	27.8	71.4	0.8
	Barium	1.2	11.84	0.10	46.3	53.1	0.6
	Beryllium	0.010	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.27	2.12	0.13	95.2	4.8	0.0
	Chromium	1.5	19.78	<0.1	17.3	82.6	0.1
	Cobalt	0.25	10.99	<0.1	54.7	45.2	0.1
	Copper	1.6	33.43	<0.1	31.8	68.1	0.1
	Cyanide	NA	142	<0.1			
X	Iron	353	7.01	50.38	47.9	52.0	0.1
	Lead	3.4	17.58	0.19	42.2	57.8	0.0
	Manganese	9.1	193.41	<0.1	12.0	86.6	1.4
	Mercury	0.021	0.07	0.31	66.1	33.8	0.1
	Nickel	0.77	87.91	<0.1	81.0	19.0	0.0
	Selenium	0.019	0.44	<0.1	73.6	25.5	0.9
	Silver	0.016	398.25	<0.1	54.5	45.0	0.5
	Thallium	0.024	0.16	0.15	54.3	44.9	0.8
X	Vanadium	0.69	0.43	1.60	54.7	45.2	0.0
	Zinc	21	351.65	<0.1	80.6	19.3	0.1
	HAZARD INDEX			*57.83*	*47.4*	*52.5*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-219
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WSS
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	182	58.27	3.13	45.1	54.8	0.0
	Antimony	0.024	0.15	0.16	54.4	44.9	0.6
	Arsenic	0.096	0.15	0.64	35.5	58.9	5.7
	Barium	0.81	11.84	<0.1	46.1	52.9	1.0
	Beryllium	0.0059	1.45	<0.1	54.6	45.1	0.2
	Cadmium	0.070	2.12	<0.1	96.4	3.4	0.1
	Chromium	0.47	19.78	<0.1	63.6	35.2	1.2
	Cobalt	0.11	10.99	<0.1	54.6	45.1	0.3
	Copper	0.72	33.43	<0.1	53.2	46.2	0.7
	Cyanide	NA	142	<0.1			
X	Iron	219	7.01	31.30	47.8	52.0	0.2
	Lead	1.6	17.58	<0.1	46.2	53.6	0.2
	Manganese	2.3	193.41	<0.1	17.3	78.3	4.4
	Mercury	0.013	0.07	0.18	89.8	9.8	0.3
	Nickel	0.79	87.91	<0.1	87.3	12.6	0.1
	Selenium	0.025	0.44	<0.1	72.0	27.3	0.8
	Silver	0.0028	398.25	<0.1	53.7	44.3	2.0
	Thallium	0.021	0.16	0.13	54.3	44.9	0.8
X	Vanadium	0.51	0.43	1.19	54.7	45.2	0.1
	Zinc	10	351.65	<0.1	93.2	6.6	0.3
	HAZARD INDEX			*37.09*	*48.0*	*51.7*	*0.3*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-220
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WG
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.007	6844.04	<0.1	84.2	14.0	1.8
	Tetrachloroethene	0.011	16.65	<0.1	85.2	13.8	1.0
	Trichloroethene	0.004	8.32	<0.1	83.7	13.5	2.9
	HAZARD INDEX			*0.00*	*83.0*	*13.4*	*3.6*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0008	170.89	<0.1	29.1	4.5	66.5
	Acenaphthylene	0.00064	158.52	<0.1	12.6	1.9	85.5
	Anthracene	0.0022	1189.21	<0.1	65.7	9.9	24.5
	Benzo(a)anthracene	0.013	1.55	<0.1	83.8	12.1	4.1
	Benzo(a)pyrene	0.016	1.55	<0.1	84.7	12.0	3.3
	Benzo(b)fluoranthene	0.030	1.55	<0.1	86.2	11.9	1.8
	Benzo(g,h,i)perylene	0.013	158.52	<0.1	84.4	11.4	4.2
	Benzo(k)fluoranthene	0.021	1.55	<0.1	85.6	11.7	2.6
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.023	1.55	<0.1	85.3	12.3	2.4
	Dibenz(a,h)anthracene	0.005	1.55	<0.1	78.2	11.1	10.7
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	0.04	148.65	<0.1	86.1	12.5	1.4
	Fluorene	0.0019	148.65	<0.1	61.1	9.3	29.6
	Indeno(1,2,3-cd)pyrene	0.015	1.55	<0.1	85.1	11.3	3.6
	Naphthalene	0.0016	166.49	<0.1	57.5	9.0	33.5
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	0.016	158.52	<0.1	83.9	12.6	3.5
	Pyrene	0.033	158.52	<0.1	85.8	12.6	1.6
	HAZARD INDEX			*0.08*	*85.0*	*11.9*	*3.1*
	Pesticides and PCBs						
	4,4'-DDD	0.0009	18.68	<0.1	86.5	12.3	1.2
	4,4'-DDE	0.00033	2.26	<0.1	84.5	12.1	3.4
	4,4'-DDT	0.000028	1.76	<0.1	52.6	7.4	40.0
	Aldrin	0.000014	0.44	<0.1	52.3	7.3	40.4
	alpha-Chlordane	0.00010	5.45	<0.1	83.7	11.7	4.6
	Aroclor 1248	0.0036	1.55	<0.1	85.0	11.9	3.0
	Aroclor 1254	0.00028	0.08	<0.1	52.9	7.4	39.7
	Aroclor 1260	0.0012	0.76	<0.1	80.1	11.0	8.9
	beta-BHC	0.000013	8.79	<0.1	49.7	7.7	42.7
	delta-BHC	0.000013	3.52	<0.1	50.0	7.6	42.4
	Endosulfan I	0.00005	3.30	<0.1	76.5	11.7	11.8
	Endosulfan Sulfate	0.000026	3.30	<0.1	50.2	7.8	42.0
	Endrin Aldehyde	0.000027	0.11	<0.1	52.1	7.5	40.4
	gamma-Chlordane	0.00006	5.45	<0.1	81.2	11.4	7.4
	HAZARD INDEX			*0.01*	*68.9*	*9.6*	*21.5*
	Inorganics						
X	Aluminum	310	58.27	5.32	45.1	54.8	0.0
X	Antimony	0.16	0.15	1.10	54.7	45.2	0.1
X	Arsenic	1.1	0.15	7.32	21.2	78.3	0.5
	Barium	1.8	11.84	0.15	46.4	53.2	0.5
	Beryllium	0.033	1.45	<0.1	54.7	45.2	0.0
	Cadmium	0.98	2.12	0.46	93.5	6.5	0.0
	Chromium	7.2	19.78	0.36	3.3	96.7	0.1
	Cobalt	0.43	10.99	<0.1	54.7	45.2	0.1
	Copper	6.8	33.43	0.20	12.0	87.9	0.1
	Cyanide	0.024	141.90	<0.1	53.5	44.2	2.3
X	Iron	486	7.01	69.35	47.9	52.0	0.1
	Lead	8.5	17.58	0.48	37.7	62.3	0.0
	Manganese	9.9	193.41	<0.1	11.7	87.3	1.0
	Mercury	0.033	0.07	0.46	48.1	51.8	0.1
	Nickel	0.85	87.91	<0.1	58.6	41.3	0.1
	Selenium	0.12	0.44	0.27	61.3	38.6	0.2
	Silver	0.010	398.25	<0.1	54.5	45.0	0.5
	Thallium	0.010	0.16	<0.1	53.8	44.5	1.7
X	Vanadium	1.5	0.43	3.44	54.8	45.2	0.0
	Zinc	34	351.65	<0.1	68.7	31.2	0.1
	HAZARD INDEX			*89.20*	*45.8*	*54.0*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-221
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WH
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	0.19	3736.31	<0.1	82.1	17.6	0.3
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8	<0.1			
	HAZARD INDEX			*0.00*	*45.6*	*9.8*	*44.6*
	Semivolatile Organics						
	2-Methylnaphthalene	0.025	170.89	<0.1	82.6	15.1	2.2
	Acenaphthylene	0.025	158.52	<0.1	82.8	15.0	2.2
	Anthracene	0.025	1189.21	<0.1	83.0	14.8	2.2
	Benzo(a)anthracene	0.026	1.55	<0.1	83.6	14.3	2.1
	Benzo(a)pyrene	NA	2	<0.1			
	Benzo(b)fluoranthene	0.027	1.55	<0.1	84.1	13.8	2.1
	Benzo(g,h,i)perylene	0.027	158.52	<0.1	84.4	13.5	2.0
	Benzo(k)fluoranthene	0.06	1.55	<0.1	85.2	13.9	0.9
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.026	1.55	<0.1	83.6	14.3	2.1
	Dibenz(a,h)anthracene	0.026	1.55	<0.1	83.8	14.1	2.1
	Dibenzofuran	0.025	158.52	<0.1	82.8	15.0	2.2
	Fluoranthene	0.026	148.65	<0.1	83.4	14.4	2.1
	Fluorene	0.025	148.65	<0.1	82.8	15.0	2.2
	Indeno(1,2,3-cd)pyrene	0.028	1.55	<0.1	84.7	13.4	2.0
	Naphthalene	0.024	166.49	<0.1	82.4	15.4	2.3
	N-nitrosodiphenylamine	0.024	329.67	<0.1	82.0	15.7	2.3
	Phenanthrene	0.025	158.52	<0.1	83.0	14.8	2.2
	Pyrene	0.026	158.52	<0.1	83.4	14.5	2.2
	HAZARD INDEX			*0.13*	*84.1*	*13.9*	*2.0*
	Pesticides and PCBs						
	4,4'-DDD	0.00022	18.68	<0.1	81.3	13.7	5.0
	4,4'-DDE	0.00022	2.26	<0.1	81.2	13.8	5.0
	4,4'-DDT	0.00022	1.76	<0.1	81.4	13.6	4.9
	Aldrin	0.00011	0.44	<0.1	81.7	13.5	4.8
	alpha-Chlordane	0.00011	5.45	<0.1	82.1	13.6	4.2
	Aroclor 1248	0.0022	1.55	<0.1	81.5	13.6	4.9
	Aroclor 1254	0.0022	0.08	<0.1	81.6	13.5	4.9
	Aroclor 1260	0.0023	0.76	<0.1	81.8	13.3	4.9
	beta-BHC	0.00011	8.79	<0.1	80.1	14.7	5.2
	delta-BHC	0.00011	3.52	<0.1	80.3	14.5	5.2
	Endosulfan I	0.00011	3.30	<0.1	80.3	14.5	5.2
	Endosulfan Sulfate	0.00021	3.30	<0.1	79.9	14.7	5.4
	Endrin Aldehyde	0.00022	0.11	<0.1	81.1	13.9	5.0
	gamma-Chlordane	0.00011	5.45	<0.1	82.1	13.7	4.2
	HAZARD INDEX			*0.03*	*81.6*	*13.5*	*4.9*
	Inorganics						
X	Aluminum	241	58.27	4.13	45.1	54.8	0.0
X	Antimony	0.59	0.15	3.99	54.8	45.2	0.0
X	Arsenic	0.93	0.15	6.20	22.0	77.4	0.6
	Barium	1.9	11.84	0.16	46.4	53.2	0.4
	Beryllium	0.025	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.1	2.12	0.51	93.3	6.7	0.0
	Chromium	4.5	19.78	0.23	5.3	94.5	0.1
	Cobalt	0.33	10.99	<0.1	54.7	45.2	0.1
	Copper	3.8	33.43	0.11	18.2	81.6	0.1
	Cyanide	0.016	141.90	<0.1	52.9	43.7	3.4
X	Iron	587	7.01	83.68	47.9	52.0	0.1
X	Lead	28	17.58	1.57	32.1	67.8	0.0
	Manganese	3.8	193.41	<0.1	15.3	82.0	2.7
	Mercury	0.021	0.07	0.29	67.7	32.1	0.2
	Nickel	0.81	87.91	<0.1	63.7	36.2	0.1
	Selenium	0.092	0.44	0.21	63.1	36.7	0.2
	Silver	0.0073	398.25	<0.1	54.4	44.9	0.8
	Thallium	0.016	0.16	<0.1	54.2	44.7	1.1
X	Vanadium	2.1	0.43	4.82	54.8	45.2	0.0
	Zinc	37	351.65	0.10	66.9	33.0	0.1
	HAZARD INDEX			*106.18*	*46.8*	*53.1*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-222
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WS
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	191	58.27	3.29	45.1	54.8	0.0
	Antimony	0.11	0.15	0.73	54.7	45.2	0.1
X	Arsenic	1.3	0.15	8.89	20.2	79.4	0.4
	Barium	2.8	11.84	0.23	46.4	53.3	0.3
	Beryllium	0.014	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.4	2.12	0.66	92.9	7.1	0.0
	Chromium	6.5	19.78	0.33	3.6	96.3	0.1
	Cobalt	0.52	10.99	<0.1	54.7	45.2	0.1
	Copper	4.5	33.43	0.13	16.0	83.9	0.1
	Cyanide	0.099	141.90	<0.1	54.5	45.0	0.6
X	Iron	706	7.01	100.75	47.9	52.0	0.1
	Lead	6.0	17.58	0.34	39.4	60.6	0.0
	Manganese	14	193.41	<0.1	10.5	88.8	0.7
	Mercury	0.027	0.07	0.39	55.3	44.5	0.2
	Nickel	0.86	87.91	<0.1	56.7	43.3	0.1
	Selenium	0.073	0.44	0.17	64.7	35.0	0.3
	Silver	0.0059	398.25	<0.1	54.3	44.8	0.9
	Thallium	0.021	0.16	0.13	54.3	44.9	0.8
X	Vanadium	1.0	0.43	2.38	54.7	45.2	0.0
	Zinc	47	351.65	0.14	59.8	40.1	0.1
	HAZARD INDEX			*118.69*	*46.0*	*53.9*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-223
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 20
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.020	26.6	<0.1	93.2	6.8	0.0
	Acetone	0.11	3736	<0.1	93.1	6.9	0.0
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8	<0.1			
	HAZARD INDEX			*0.001*	*93.2*	*6.8*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	NA	171	<0.1			
	Acenaphthylene	NA	159	<0.1			
	Anthracene	NA	1189	<0.1			
	Benzo(a)anthracene	0.24	1.5	0.16	94.4	5.6	0.0
	Benzo(a)pyrene	0.27	1.5	0.17	94.5	5.5	0.0
	Benzo(b)fluoranthene	0.9	1.55	0.55	94.6	5.4	0.0
	Benzo(g,h,i)perylene	NA	159	<0.1			
	Benzo(k)fluoranthene	NA	1.5	<0.1			
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.33	1.55	0.22	94.4	5.6	0.0
	Dibenz(a,h)anthracene	NA	1.5	<0.1			
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	0.66	148.65	<0.1	94.4	5.6	0.0
	Fluorene	NA	149	<0.1			
	Indeno(1,2,3-cd)pyrene	0.20	1.5	0.13	94.8	5.2	0.0
	Naphthalene	NA	166	<0.1			
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	0.19	159	<0.1	94.2	5.8	0.0
	Pyrene	0.55	159	<0.1	94.3	5.7	0.0
	HAZARD INDEX			*1.24*	*94.6*	*5.4*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.0072	18.7	<0.1	94.5	5.5	0.0
	4,4'-DDE	0.0071	2.26	<0.1	94.5	5.5	0.0
	4,4'-DDT	NA	1.8	<0.1			
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.011	5.45	<0.1	94.6	5.4	0.0
	Aroclor 1248	NA	1.5	<0.1			
	Aroclor 1254	NA	0.081	<0.1			
	Aroclor 1260	NA	0.76	<0.1			
	beta-BHC	NA	8.8	<0.1			
	delta-BHC	NA	3.5	<0.1			
	Endosulfan I	0.009	3.30	<0.1	94.1	5.9	0.0
	Endosulfan Sulfate	NA	3.3	<0.1			
	Endrin Aldehyde	NA	0.11	<0.1			
	gamma-Chlordane	0.0027	5.45	<0.1	94.6	5.4	0.0
	HAZARD INDEX			*0.01*	*94.4*	*5.6*	*0.0*
	Inorganics						
X	Aluminum	669	58.27	11.5	45.1	54.8	0.1
	Antimony	0.15	0.15	0.99	54.7	45.2	0.1
X	Arsenic	2.5	0.15	16.40	17.3	82.3	0.4
	`	3.5	11.84	0.30	46.4	53.3	0.3
	Beryllium	0.055	1.45	<0.1	54.7	45.2	0.1
X	Cadmium	2.7	2.12	1.30	91.7	8.3	0.0
X	Chromium	23	19.78	1.17	0.9	99.0	0.1
	Cobalt	1.3	10.99	0.12	54.7	45.2	0.1
	Copper	14	33.43	0.43	7.0	92.8	0.1
	Cyanide	NA	141.90	<0.1			
X	Iron	1040	7.01	148.4	47.9	52.0	0.1
X	Lead	22	17.58	1.26	33.1	66.8	0.1
	Manganese	13	193.41	<0.1	10.9	88.1	1.0
	Mercury	0.058	0.070	0.83	29.8	70.0	0.2
	Nickel	1.1	87.91	<0.1	36.6	63.3	0.1
	Selenium	0.30	0.44	0.68	54.1	45.8	0.1
	Silver	0.044	398.25	<0.1	54.7	45.2	0.2
	Thallium	0.12	0.16	0.73	54.7	45.2	0.1
X	Vanadium	3.1	0.43	7.33	54.7	45.2	0.0
	Zinc	80	351.65	0.23	46.3	53.5	0.2
	HAZARD INDEX			*191.7*	*45.2*	*54.7*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-224
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 21
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.00017	6844	<0.1	0.0	0.0	100.0
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	0.0033	8.3	<0.1	92.8	7.2	0.0
	HAZARD INDEX			*0.000*	*92.8*	*7.2*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	0.025	171	<0.1	93.1	6.9	0.0
	Acenaphthylene	0.007	159	<0.1	93.2	6.8	0.0
	Anthracene	0.08	1189	<0.1	93.3	6.7	0.0
	Benzo(a)anthracene	0.07	1.5	<0.1	93.5	6.5	0.0
	Benzo(a)pyrene	0.17	1.5	0.11	93.6	6.4	0.0
	Benzo(b)fluoranthene	0.61	1.55	0.40	93.8	6.2	0.0
	Benzo(g,h,i)perylene	0.14	158.52	<0.1	93.9	6.1	0.0
	Benzo(k)fluoranthene	NA	1.55	<0.1			
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.18	1.55	0.12	93.5	6.5	0.0
	Dibenz(a,h)anthracene	0.047	1.5	<0.1	93.6	6.4	0.0
	Dibenzofuran	NA	158.52	<0.1			
	Fluoranthene	0.47	148.65	<0.1	93.5	6.5	0.0
	Fluorene	0.044	149	<0.1	93.2	6.8	0.0
	Indeno(1,2,3-cd)pyrene	0.13	2	<0.1	94.0	6.0	0.0
	Naphthalene	0.44	166	<0.1	92.9	7.0	0.2
	N-nitrosodiphenylamine	NA	329.67	<0.1			
	Phenanthrene	0.11	159	<0.1	93.3	6.7	0.0
	Pyrene	0.45	159	<0.1	93.4	6.6	0.0
	HAZARD INDEX			*0.80*	*93.7*	*6.3*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.0068	18.7	<0.1	93.6	6.4	0.0
	4,4'-DDE	0.0069	2.26	<0.1	93.6	6.4	0.0
	4,4'-DDT	0.0009	1.8	<0.1	93.7	6.3	0.0
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.012	5.45	<0.1	93.7	6.3	0.0
	Aroclor 1248	0.047	1.55	<0.1	93.7	6.3	0.0
	Aroclor 1254	NA	0.08	<0.1			
	Aroclor 1260	0.08	0.76	0.11	93.8	6.2	0.0
	beta-BHC	NA	8.79	<0.1			
	delta-BHC	0.00033	3.52	<0.1	93.2	6.8	0.0
	Endosulfan I	0.012	3.30	<0.1	93.2	6.8	0.0
	Endosulfan Sulfate	NA	3.30	<0.1			
	Endrin Aldehyde	0.0017	0.11	<0.1	93.5	6.5	0.0
	gamma-Chlordane	0.009	5.45	<0.1	93.7	6.3	0.0
	HAZARD INDEX			*0.17*	*93.7*	*6.3*	*0.0*
	Inorganics						
X	Aluminum	415	58.27	7.1	45.1	54.8	0.1
	Antimony	0.055	0.15	0.37	54.6	45.1	0.4
X	Arsenic	1.9	0.15	12.87	18.4	81.1	0.5
	Barium	4.2	11.84	0.35	46.5	53.3	0.2
	Beryllium	0.030	1.45	<0.1	54.7	45.2	0.1
X	Cadmium	3.0	2.12	1.41	91.5	8.5	0.0
X	Chromium	62	19.78	3.15	0.3	99.7	0.0
	Cobalt	0.82	10.99	<0.1	54.7	45.2	0.1
	Copper	8.3	33.43	0.25	10.4	89.4	0.2
	Cyanide	NA	141.90	<0.1			
X	Iron	665	7.01	94.9	47.8	52.0	0.2
	Lead	14	17.58	0.79	35.3	64.6	0.1
	Manganese	4.0	193.41	<0.1	14.9	81.9	3.2
X	Mercury	0.25	0.070	3.50	8.6	91.3	0.1
	Nickel	1.0	87.91	<0.1	42.9	57.0	0.1
	Selenium	0.11	0.4	0.26	61.5	38.3	0.2
	Silver	0.0083	398.25	<0.1	54.3	44.9	0.8
	Thallium	0.00018	0.16	<0.1	0.0	0.0	100.0
X	Vanadium	2.1	0.43	4.93	54.7	45.2	0.1
	Zinc	102	351.65	0.29	40.8	59.1	0.1
	HAZARD INDEX			*130.3*	*43.2*	*56.6*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-225
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION 22/TT-22
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	26.6	<0.1			
	Acetone	0.28	3736	<0.1	89.6	10.4	0.0
	cis-1,2-Dichloroethene	0.0095	6844	<0.1	88.8	9.5	1.7
	Tetrachloroethene	0.36	16.6	<0.1	90.6	9.4	0.0
	Trichloroethene	0.092	8.3	<0.1	90.6	9.4	0.0
	HAZARD INDEX			*0.033*	*90.6*	*9.4*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0018	171	<0.1	91.0	9.0	0.0
	Acenaphthylene	0.0017	159	<0.1	91.1	8.9	0.0
	Anthracene	0.0064	1189	<0.1	91.2	8.8	0.0
	Benzo(a)anthracene	0.044	2	<0.1	91.5	8.5	0.0
	Benzo(a)pyrene	0.030	2	<0.1	91.6	8.4	0.0
	Benzo(b)fluoranthene	0.066	1.55	<0.1	91.8	8.2	0.0
	Benzo(g,h,i)perylene	0.029	158.52	<0.1	92.0	8.0	0.0
	Benzo(k)fluoranthene	0.082	1.55	<0.1	91.9	8.1	0.0
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.058	1.55	<0.1	91.5	8.5	0.0
	Dibenz(a,h)anthracene	0.0065	2	<0.1	91.6	8.4	0.0
	Dibenzofuran	NA	158.52	<0.1			
	Fluoranthene	0.12	148.65	<0.1	91.5	8.5	0.0
	Fluorene	0.0036	149	<0.1	91.1	8.9	0.0
	Indeno(1,2,3-cd)pyrene	0.035	2	<0.1	92.1	7.9	0.0
	Naphthalene	0.0041	166	<0.1	75.5	7.6	16.9
	N-nitrosodiphenylamine	NA	329.67	<0.1			
	Phenanthrene	0.069	159	<0.1	91.2	8.8	0.0
	Pyrene	0.088	159	<0.1	91.4	8.6	0.0
	HAZARD INDEX			*0.21*	*91.8*	*8.2*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.0014	18.7	<0.1	91.7	8.3	0.0
	4,4'-DDE	0.0045	2.26	<0.1	91.6	8.4	0.0
	4,4'-DDT	0.00040	1.8	<0.1	91.7	8.3	0.0
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.00018	5.45	<0.1	91.5	8.2	0.3
	Aroclor 1248	0.0012	1.55	<0.1	91.7	8.3	0.0
	Aroclor 1254	NA	0.08	<0.1			
	Aroclor 1260	0.0044	0.76	<0.1	91.9	8.1	0.0
	beta-BHC	NA	8.79	<0.1			
	delta-BHC	0.000022	3.52	<0.1	91.1	8.9	0.0
	Endosulfan I	0.00059	3.30	<0.1	91.1	8.9	0.0
	Endosulfan Sulfate	NA	3.30	<0.1			
	Endrin Aldehyde	0.00048	0.11	<0.1	91.5	8.5	0.0
	gamma-Chlordane	0.000029	5.45	<0.1	90.8	8.2	1.1
	HAZARD INDEX			*0.01*	*91.7*	*8.3*	*0.0*
	Inorganics						
X	Aluminum	231	58.27	4.0	45.1	54.7	0.2
X	Antimony	9.0	0.15	60.43	54.8	45.2	0.0
X	Arsenic	0.65	0.15	4.35	23.8	74.6	1.6
	Barium	1.2	11.84	<0.1	46.2	53.0	0.8
	Beryllium	0.019	1.45	<0.1	54.7	45.2	0.2
	Cadmium	0.35	2.12	0.16	94.8	5.1	0.2
	Chromium	1.1	19.78	<0.1	24.9	73.9	1.2
	Cobalt	0.12	10.99	<0.1	54.4	44.9	0.7
	Copper	0.77	33.43	<0.1	50.8	47.2	2.0
	Cyanide	NA	141.90	<0.1			
X	Iron	218	7.01	31.1	47.6	51.7	0.7
X	Lead	507	17.58	28.82	20.8	79.2	0.0
	Manganese	1.9	193.41	<0.1	17.9	75.4	6.7
	Mercury	0.020	0.070	0.28	70.1	29.2	0.7
	Nickel	0.77	87.91	<0.1	81.6	18.2	0.1
	Selenium	0.17	0.4	0.39	58.5	41.4	0.1
	Silver	0.079	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.016	0.16	<0.1	54.1	44.7	1.1
X	Vanadium	1.1	0.43	2.59	54.7	45.2	0.1
	Zinc	13	351.65	<0.1	89.6	9.3	1.1
	HAZARD INDEX			*132.5*	*44.5*	*55.3*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-226
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION BW
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.079	6844	<0.1	93.3	6.5	0.2
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	0.010	8.3	<0.1	93.7	6.3	0.0
	HAZARD INDEX			*0.001*	*93.7*	*6.3*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	0.0027	171	<0.1	93.9	6.1	0.0
	Acenaphthylene	0.0039	159	<0.1	94.0	6.0	0.0
	Anthracene	0.014	1189	<0.1	94.1	5.9	0.0
	Benzo(a)anthracene	0.12	2	<0.1	94.3	5.7	0.0
	Benzo(a)pyrene	0.22	2	0.14	94.4	5.6	0.0
	Benzo(b)fluoranthene	0.34	1.55	0.22	94.5	5.5	0.0
	Benzo(g,h,i)perylene	0.15	158.52	<0.1	94.7	5.3	0.0
	Benzo(k)fluoranthene	0.16	1.55	0.11	94.6	5.4	0.0
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.18	1.55	0.12	94.3	5.7	0.0
	Dibenz(a,h)anthracene	0.071	2	<0.1	94.4	5.6	0.0
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	0.26	148.65	<0.1	94.3	5.7	0.0
	Fluorene	0.0097	149	<0.1	94.0	6.0	0.0
	Indeno(1,2,3-cd)pyrene	0.17	2	0.11	94.7	5.3	0.0
	Naphthalene	0.0059	166	<0.1	82.9	5.4	11.6
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	0.12	159	<0.1	94.1	5.9	0.0
	Pyrene	0.21	159	<0.1	94.2	5.8	0.0
	HAZARD INDEX			*0.83*	*94.5*	*5.5*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.0038	18.7	<0.1	94.4	5.6	0.0
	4,4'-DDE	0.00087	2.26	<0.1	94.3	5.7	0.0
	4,4'-DDT	0.00029	1.8	<0.1	94.4	5.6	0.0
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.00054	5.45	<0.1	94.4	5.5	0.1
	Aroclor 1248	0.0062	1.55	<0.1	94.4	5.6	0.0
	Aroclor 1254	NA	0.08	<0.1			
	Aroclor 1260	0.013	0.76	<0.1	94.6	5.4	0.0
	beta-BHC	NA	8.79	<0.1			
	delta-BHC	NA	3.52	<0.1			
	Endosulfan I	NA	3.30	<0.1			
	Endosulfan Sulfate	NA	3.30	<0.1			
	Endrin Aldehyde	0.00039	0.11	<0.1	94.3	5.7	0.0
	gamma-Chlordane	0.00038	5.45	<0.1	94.4	5.5	0.1
	HAZARD INDEX			*0.03*	*94.5*	*5.5*	*0.0*
	Inorganics						
X	Aluminum	492	58.27	8.5	45.1	54.8	0.1
X	Antimony	1.7	0.15	11.49	54.8	45.2	0.0
X	Arsenic	21	0.15	141.56	9.8	90.2	0.0
	Barium	3.8	11.84	0.32	46.5	53.3	0.2
	Beryllium	0.045	1.45	<0.1	54.7	45.2	0.1
	Cadmium	2.0	2.12	0.92	92.3	7.7	0.0
X	Chromium	25	19.78	1.28	0.8	99.1	0.1
	Cobalt	1.4	10.99	0.13	54.7	45.2	0.1
	Copper	20	33.43	0.59	5.6	94.4	0.1
	Cyanide	NA	142	<0.1			
X	Iron	3546	7.01	505.8	47.9	52.1	0.0
	Lead	16	17.58	0.93	34.5	65.4	0.1
	Manganese	19	193.41	<0.1	9.7	89.7	0.7
X	Mercury	0.21	0.070	3.03	9.8	90.1	0.1
	Nickel	0.96	87.91	<0.1	46.7	53.2	0.1
	Selenium	0.36	0.4	0.82	52.7	47.2	0.1
	Silver	0.057	398.25	<0.1	54.7	45.2	0.1
X	Thallium	0.36	0.16	2.21	54.7	45.2	0.0
X	Vanadium	2.5	0.43	5.89	54.7	45.2	0.1
	Zinc	66	351.65	0.19	51.2	48.6	0.2
	HAZARD INDEX			*683.8*	*39.9*	*60.0*	*0.0*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-227
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-01
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	332	58.27	5.7	45.1	54.8	0.0
	Antimony	0.056	0.15	0.38	54.8	45.2	0.0
X	Arsenic	0.50	0.15	3.31	25.6	73.6	0.9
	Barium	1.4	11.84	0.12	46.3	53.1	0.6
	Beryllium	0.037	1.45	<0.1	54.8	45.2	0.0
	Cadmium	1.6	2.12	0.74	92.7	7.3	0.0
	Chromium	4.3	19.78	0.22	5.6	94.4	0.1
	Cobalt	0.38	10.99	<0.1	54.7	45.2	0.1
	Copper	10	33.43	0.30	9.0	91.0	0.0
	Cyanide	NA	142	<0.1			
X	Iron	444	7.01	63.3	47.9	52.0	0.1
	Lead	8.8	17.58	0.50	37.5	62.5	0.0
	Manganese	10	193.41	<0.1	11.7	86.6	1.7
	Mercury	0.054	0.070	0.76	32.0	67.9	0.1
	Nickel	0.79	87.91	<0.1	68.1	31.9	0.1
	Selenium	0.15	0.4	0.34	59.4	40.6	0.0
	Silver	0.012	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.070	0.16	0.42	54.8	45.2	0.0
X	Vanadium	2.2	0.43	5.06	54.8	45.2	0.0
	Zinc	29	351.65	<0.1	72.9	27.0	0.1
	HAZARD INDEX			*81.4*	*47.3*	*52.6*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-228
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-02
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	122	58.27	2.1	45.1	54.8	0.1
	Antimony	0.049	0.15	0.33	54.8	45.2	0.0
X	Arsenic	0.37	0.15	2.44	27.4	71.4	1.2
	Barium	4.0	11.84	0.33	46.5	53.3	0.2
	Beryllium	0.0093	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.77	2.12	0.36	93.8	6.2	0.0
	Chromium	2.0	19.78	0.10	12.6	87.3	0.1
	Cobalt	0.15	10.99	<0.1	54.6	45.1	0.3
	Copper	1.7	33.43	<0.1	30.7	69.1	0.2
	Cyanide	NA	142	<0.1			
X	Iron	164	7.01	23.4	47.8	51.9	0.3
	Lead	4.9	17.58	0.28	40.4	59.6	0.0
	Manganese	1.3	193.41	<0.1	18.8	68.1	13.1
	Mercury	0.017	0.070	0.25	76.4	23.4	0.2
	Nickel	0.77	87.91	<0.1	84.0	15.9	0.1
	Selenium	0.069	0.4	0.16	65.3	34.7	0.0
	Silver	NA	398	<0.1			
	Thallium	0.015	0.16	<0.1	54.8	45.2	0.0
X	Vanadium	0.87	0.43	2.03	54.7	45.2	0.0
	Zinc	21	351.65	<0.1	81.2	18.7	0.1
	HAZARD INDEX			*32.0*	*47.3*	*52.4*	*0.3*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-229
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-03
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	254	58.27	4.4	45.1	54.8	0.0
	Antimony	0.131	0.15	0.88	54.8	45.2	0.0
X	Arsenic	4	0.15	29.40	14.9	85.0	0.1
	Barium	1.5	11.84	0.13	46.3	53.2	0.5
	Beryllium	0.018	1.45	<0.1	54.7	45.2	0.1
	Cadmium	2.1	2.12	0.98	92.2	7.8	0.0
	Chromium	9.7	19.78	0.49	2.4	97.6	0.0
	Cobalt	1.7	10.99	0.16	54.8	45.2	0.0
	Copper	5.4	33.43	0.16	14.1	85.8	0.1
	Cyanide	NA	142	<0.1			
X	Iron	1201	7.01	171.3	47.9	52.1	0.0
	Lead	5.6	17.58	0.32	39.7	60.3	0.0
	Manganese	6.8	193.41	<0.1	12.9	84.5	2.5
	Mercury	0.047	0.070	0.67	35.6	64.3	0.1
	Nickel	0.92	87.91	<0.1	50.3	49.6	0.1
	Selenium	0.16	0.4	0.36	59.1	40.9	0.0
	Silver	0.087	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.026	0.16	0.16	54.8	45.2	0.0
X	Vanadium	1.7	0.43	3.98	54.8	45.2	0.0
	Zinc	57	351.65	0.16	54.8	45.2	0.0
	HAZARD INDEX			*213.6*	*43.5*	*56.4*	*0.0*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-230
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-04
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	248	58.27	4.3	45.1	54.8	0.0
	Antimony	0.13	0.15	0.88	54.8	45.2	0.0
X	Arsenic	1.4	0.15	9.56	19.8	79.9	0.3
	Barium	1.8	11.84	0.15	46.4	53.2	0.4
	Beryllium	0.021	1.45	<0.1	54.7	45.2	0.0
	Cadmium	1.1	2.12	0.50	93.3	6.7	0.0
	Chromium	3.6	19.78	0.18	6.8	93.1	0.1
	Cobalt	0.31	10.99	<0.1	54.7	45.2	0.1
	Copper	3.7	33.43	0.11	18.4	81.5	0.1
	Cyanide	NA	142	<0.1			
X	Iron	947	7.01	135.1	47.9	52.1	0.0
	Lead	5.6	17.58	0.32	39.7	60.3	0.0
	Manganese	19	193.41	<0.1	9.7	89.4	0.9
	Mercury	0.030	0.070	0.43	50.7	49.1	0.1
	Nickel	1.3	87.91	<0.1	28.7	71.2	0.0
	Selenium	0.12	0.4	0.28	61.0	39.0	0.0
	Silver	0.31	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.145	0.16	0.88	54.8	45.2	0.0
X	Vanadium	1.9	0.43	4.36	54.8	45.2	0.0
	Zinc	73	351.65	0.21	48.4	51.5	0.0
	HAZARD INDEX			*157.4*	*46.5*	*53.5*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-231
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-05
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	140	58.27	2.4	45.1	54.8	0.1
	Antimony	0.031	0.15	0.21	54.8	45.2	0.0
X	Arsenic	0.51	0.15	3.41	25.4	73.8	0.9
	Barium	0.72	11.84	<0.1	46.1	52.8	1.1
	Beryllium	0.0085	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.19	2.12	<0.1	95.6	4.4	0.0
	Chromium	2.0	19.78	<0.1	13.1	86.8	0.1
	Cobalt	0.18	10.99	<0.1	54.6	45.1	0.2
	Copper	1.1	33.43	<0.1	41.8	57.9	0.3
	Cyanide	NA	142	<0.1			
X	Iron	272	7.01	38.9	47.8	52.0	0.2
	Lead	1.4	17.58	<0.1	46.7	53.2	0.1
	Manganese	3.5	193.41	<0.1	15.3	79.8	4.9
	Mercury	0.017	0.070	0.24	78.3	21.5	0.2
	Nickel	0.77	87.91	<0.1	83.6	16.4	0.1
	Selenium	0.039	0.4	<0.1	69.3	30.7	0.0
	Silver	0.0033	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.045	0.16	0.27	54.8	45.2	0.0
X	Vanadium	0.71	0.43	1.65	54.7	45.2	0.1
	Zinc	16	351.65	<0.1	86.9	13.0	0.1
	HAZARD INDEX			*47.6*	*46.6*	*53.2*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-232
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION CB-06
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	193	58.27	3.3	45.1	54.8	0.0
	Antimony	0.13	0.15	0.87	54.8	45.2	0.0
X	Arsenic	1.1	0.15	7.48	21.1	78.5	0.4
	Barium	1.2	11.84	0.10	46.3	53.1	0.7
	Beryllium	0.011	1.45	<0.1	54.7	45.2	0.1
X	Cadmium	2.6	2.12	1.22	91.8	8.2	0.0
	Chromium	6	19.78	0.32	3.7	96.3	0.0
	Cobalt	0.38	10.99	<0.1	54.7	45.2	0.1
	Copper	3.6	33.43	0.11	18.8	81.1	0.1
	Cyanide	NA	142	<0.1			
X	Iron	386	7.01	55.0	47.9	52.0	0.1
	Lead	4.0	17.58	0.23	41.4	58.5	0.0
	Manganese	1.6	193.41	<0.1	18.1	71.3	10.5
	Mercury	0.018	0.070	0.25	75.9	23.9	0.2
	Nickel	0.84	87.91	<0.1	59.5	40.5	0.1
	Selenium	0.070	0.4	0.16	65.2	34.8	0.0
	Silver	0.0045	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.11	0.16	0.69	54.8	45.2	0.0
X	Vanadium	2.0	0.43	4.61	54.8	45.2	0.0
	Zinc	57	351.65	0.16	55.0	45.0	0.0
	HAZARD INDEX			*74.6*	*46.2*	*53.6*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-233
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION DA
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	212	58.27	3.6	45.1	54.8	0.0
	Antimony	0.029	0.15	0.20	54.8	45.2	0.0
X	Arsenic	1.5	0.15	10.23	19.5	80.2	0.3
	Barium	1.5	11.84	0.13	46.3	53.2	0.5
	Beryllium	0.014	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.89	2.12	0.42	93.6	6.4	0.0
	Chromium	5.1	19.78	0.26	4.7	95.2	0.1
	Cobalt	0.7	10.99	<0.1	54.7	45.2	0.1
	Copper	3.8	33.43	0.11	18.2	81.7	0.1
	Cyanide	NA	142	<0.1			
X	Iron	795	7.01	113.4	47.9	52.1	0.1
	Lead	4.5	17.58	0.25	40.9	59.1	0.0
	Manganese	38	193.41	0.20	7.9	91.7	0.4
	Mercury	0.06	0.070	0.85	29.3	70.6	0.1
	Nickel	0.78	87.91	<0.1	72.5	27.4	0.1
	Selenium	0.061	0.4	0.14	66.2	33.8	0.0
	Silver	0.0059	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.09	0.16	0.55	54.8	45.2	0.0
X	Vanadium	1.0	0.43	2.42	54.7	45.2	0.0
	Zinc	28	351.65	<0.1	73.9	26.0	0.1
	HAZARD INDEX			*132.9*	*45.7*	*54.2*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-234
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION NRSE
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	192	58.27	3.3	45.0	54.7	0.3
	Antimony	0.028	0.15	0.19	54.4	44.9	0.7
X	Arsenic	1.7	0.15	11.21	19.0	80.4	0.6
	Barium	1.3	11.84	0.11	46.2	53.0	0.7
	Beryllium	0.020	1.45	<0.1	54.7	45.2	0.2
	Cadmium	0.49	2.12	0.23	94.4	5.5	0.1
	Chromium	3.4	19.78	0.17	7.4	92.3	0.4
	Cobalt	0.22	10.99	<0.1	54.6	45.1	0.4
	Copper	4.5	33.43	0.13	16.1	83.6	0.3
	Cyanide	NA	142	<0.1			
X	Iron	578	7.01	82.4	47.8	51.9	0.3
	Lead	4.7	17.58	0.27	40.5	59.1	0.4
	Manganese	3.8	193.41	<0.1	15.2	81.4	3.4
X	Mercury	0.074	0.070	1.05	24.4	75.4	0.2
	Nickel	0.77	87.91	<0.1	77.3	22.6	0.1
	Selenium	0.081	0.4	0.19	63.9	35.8	0.2
	Silver	0.061	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.028	0.16	0.17	54.4	44.9	0.6
X	Vanadium	0.84	0.43	1.96	54.7	45.2	0.2
	Zinc	26	351.65	<0.1	76.0	23.4	0.5
	HAZARD INDEX			*101.5*	*44.5*	*55.2*	*0.3*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-235
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION JY
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8.3	<0.1			
	HAZARD INDEX			*0.000*	*0.0*	*0.0*	*100.0*
	Semivolatile Organics						
	2-Methylnaphthalene	NA	171	<0.1			
	Acenaphthylene	NA	159	<0.1			
	Anthracene	NA	1189	<0.1			
	Benzo(a)anthracene	NA	1.5	<0.1			
	Benzo(a)pyrene	NA	1.5	<0.1			
	Benzo(b)fluoranthene	NA	1.5	<0.1			
	Benzo(g,h,i)perylene	NA	159	<0.1			
	Benzo(k)fluoranthene	NA	1.5	<0.1			
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	NA	1.5	<0.1			
	Dibenz(a,h)anthracene	NA	1.5	<0.1			
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	NA	149	<0.1			
	Fluorene	NA	149	<0.1			
	Indeno(1,2,3-cd)pyrene	NA	1.5	<0.1			
	Naphthalene	NA	166	<0.1			
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	NA	159	<0.1			
	Pyrene	NA	159	<0.1			
	HAZARD INDEX			*0.00*	*0.0*	*0.0*	*100.0*
	Pesticides and PCBs						
	4,4'-DDD	NA	19	<0.1			
	4,4'-DDE	NA	2.3	<0.1			
	4,4'-DDT	NA	1.8	<0.1			
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	NA	5.4	<0.1			
	Aroclor 1248	0.061	1.5	<0.1	97.1	2.9	0.0
X	Aroclor 1254	0.58	0.081	7.2	97.1	2.9	0.0
	Aroclor 1260	0.64	0.76	0.84	97.1	2.9	0.0
	beta-BHC	NA	8.8	<0.1			
	delta-BHC	NA	3.5	<0.1			
	Endosulfan I	NA	3.3	<0.1			
	Endosulfan Sulfate	NA	3.3	<0.1			
	Endrin Aldehyde	NA	0.11	<0.1			
	gamma-Chlordane	NA	5.4	<0.1			
	HAZARD INDEX			*8.10*	*97.1*	*2.9*	*0.0*
	Inorganics						
X	Aluminum	277	58.27	4.8	45.1	54.8	0.2
X	Antimony	0.53	0.15	3.58	54.7	45.2	0.0
X	Arsenic	2.2	0.15	14.52	17.8	81.7	0.5
	Barium	4.2	11.84	0.36	46.5	53.3	0.2
	Beryllium	0.018	1.45	<0.1	54.7	45.2	0.2
X	Cadmium	2.3	2.12	1.07	92.0	7.9	0.0
	Chromium	15	19.78	0.74	1.5	98.4	0.1
	Cobalt	0.45	10.99	<0.1	54.7	45.1	0.2
	Copper	7.0	33.43	0.21	11.7	88.1	0.2
	Cyanide	NA	142	<0.1			
X	Iron	908	7.01	129.5	47.8	52.0	0.2
	Lead	14	17.58	0.79	35.3	64.6	0.1
	Manganese	5.4	193.41	<0.1	13.8	83.8	2.4
	Mercury	0.039	0.070	0.55	41.8	57.9	0.3
	Nickel	1.3	87.91	<0.1	29.2	70.7	0.1
	Selenium	0.15	0.4	0.35	59.2	40.7	0.1
	Silver	0.029	398.25	<0.1	54.6	45.1	0.2
	Thallium	0.11	0.16	0.67	54.7	45.2	0.2
X	Vanadium	1.8	0.43	4.10	54.7	45.2	0.1
	Zinc	62	351.65	0.18	52.8	47.0	0.2
	HAZARD INDEX			*161.5*	*45.4*	*54.4*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-236
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION NRSO
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	151	58.27	2.6	45.0	54.7	0.3
	Antimony	0.026	0.15	0.18	54.3	44.9	0.8
X	Arsenic	1.6	0.15	10.53	19.3	80.0	0.6
	Barium	1.4	11.84	0.12	46.3	53.1	0.7
	Beryllium	0.013	1.45	<0.1	54.6	45.1	0.3
	Cadmium	0.48	2.12	0.23	94.4	5.5	0.1
	Chromium	2.4	19.78	0.12	10.6	88.9	0.5
	Cobalt	0.27	10.99	<0.1	54.6	45.1	0.3
	Copper	2.8	33.43	<0.1	22.5	76.9	0.6
	Cyanide	NA	142	<0.1			
X	Iron	679	7.01	96.9	47.8	52.0	0.2
	Lead	3.1	17.58	0.18	42.5	57.0	0.5
	Manganese	12	193.41	<0.1	11.2	87.7	1.1
	Mercury	0.041	0.070	0.58	40.0	59.6	0.3
	Nickel	0.77	87.91	<0.1	79.0	20.9	0.1
	Selenium	0.064	0.4	0.14	65.7	34.0	0.3
	Silver	0.055	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.026	0.16	0.16	54.4	44.9	0.7
X	Vanadium	0.69	0.43	1.61	54.7	45.1	0.2
	Zinc	27	351.65	<0.1	75.1	24.4	0.5
	HAZARD INDEX			*113.6*	*45.2*	*54.5*	*0.3*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-237
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION KFSO
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	142	58.27	2.4	45.1	54.8	0.1
	Antimony	0.024	0.15	0.16	54.8	45.2	0.0
X	Arsenic	0.40	0.15	2.68	26.8	72.1	1.1
	Barium	1.4	11.84	0.12	46.3	53.1	0.6
	Beryllium	0.011	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.34	2.12	0.16	94.9	5.1	0.0
	Chromium	1.7	19.78	<0.1	14.9	85.0	0.2
	Cobalt	0.28	10.99	<0.1	54.7	45.2	0.1
	Copper	1.9	33.43	<0.1	29.2	70.7	0.2
	Cyanide	NA	142	<0.1			
X	Iron	404	7.01	57.6	47.9	52.0	0.1
	Lead	4.1	17.58	0.23	41.4	58.6	0.0
	Manganese	12	193.41	<0.1	11.2	87.3	1.5
	Mercury	0.023	0.070	0.33	62.7	37.1	0.1
	Nickel	0.77	87.91	<0.1	77.1	22.8	0.1
	Selenium	0.023	0.4	<0.1	72.9	27.1	0.0
	Silver	0.019	398.25	<0.1	54.8	45.2	0.0
	Thallium	0.024	0.16	0.15	54.8	45.2	0.0
X	Vanadium	0.79	0.43	1.84	54.7	45.2	0.0
	Zinc	23	351.65	<0.1	78.8	21.1	0.1
	HAZARD INDEX			*66.1*	*47.3*	*52.6*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-238
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WSS
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	208	58.27	3.6	45.0	54.7	0.2
	Antimony	0.021	0.15	0.14	54.2	44.8	1.0
	Arsenic	0.11	0.15	0.73	33.4	57.3	9.3
	Barium	0.93	11.84	<0.1	46.1	52.9	1.0
	Beryllium	0.0082	1.45	<0.1	54.5	45.1	0.4
	Cadmium	0.12	2.12	<0.1	95.6	3.9	0.5
	Chromium	0.53	19.78	<0.1	55.0	42.5	2.4
	Cobalt	0.14	10.99	<0.1	54.4	45.0	0.6
	Copper	0.84	33.43	<0.1	48.3	49.8	1.9
	Cyanide	NA	142	<0.1			
X	Iron	258	7.01	36.7	47.6	51.8	0.6
	Lead	1.9	17.58	0.11	45.0	54.1	0.9
	Manganese	2.9	193.41	<0.1	16.2	79.5	4.3
	Mercury	0.013	0.070	0.19	88.1	10.9	1.0
	Nickel	0.78	87.91	<0.1	84.9	15.0	0.1
	Selenium	0.031	0.4	<0.1	70.6	28.7	0.7
	Silver	0.0028	398.25	<0.1	53.4	44.1	2.4
	Thallium	0.033	0.16	0.20	54.5	45.0	0.5
X	Vanadium	0.65	0.43	1.52	54.7	45.1	0.2
	Zinc	11	351.65	<0.1	91.0	7.8	1.2
	HAZARD INDEX			*43.5*	*47.8*	*51.5*	*0.7*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-239
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WG
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	NA	3736	<0.1			
	cis-1,2-Dichloroethene	0.007	6844	<0.1	83.8	14.0	2.3
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	0.004	8.3	<0.1	86.1	13.9	0.0
	HAZARD INDEX			*0.000*	*86.1*	*13.9*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	0.00000	171	<0.1	0.0	0.0	0.0
	Acenaphthylene	0.00009	159	<0.1	86.7	13.3	0.0
	Anthracene	0.0017	1189	<0.1	86.9	13.1	0.0
	Benzo(a)anthracene	0.013	2	<0.1	87.4	12.6	0.0
	Benzo(a)pyrene	0.016	2	<0.1	87.6	12.4	0.0
	Benzo(b)fluoranthene	0.029	1.55	<0.1	87.8	12.2	0.0
	Benzo(g,h,i)perylene	0.012	158.52	<0.1	88.1	11.9	0.0
	Benzo(k)fluoranthene	0.020	1.55	<0.1	87.9	12.1	0.0
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.023	1.55	<0.1	87.4	12.6	0.0
	Dibenz(a,h)anthracene	0.005	2	<0.1	87.6	12.4	0.0
	Dibenzofuran	NA	158.5	<0.1			
	Fluoranthene	0.04	148.65	<0.1	87.3	12.7	0.0
	Fluorene	0.0013	149	<0.1	86.8	13.2	0.0
	Indeno(1,2,3-cd)pyrene	0.015	2	<0.1	88.3	11.7	0.0
	Naphthalene	0.0018	166	<0.1	53.1	8.3	38.6
	N-nitrosodiphenylamine	NA	329.7	<0.1			
	Phenanthrene	0.015	159	<0.1	86.9	13.1	0.0
	Pyrene	0.033	159	<0.1	87.2	12.8	0.0
	HAZARD INDEX			*0.08*	*87.7*	*12.3*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.0009	18.7	<0.1	87.6	12.4	0.0
	4,4'-DDE	0.00032	2.26	<0.1	87.5	12.5	0.0
	4,4'-DDT	0.000000	1.8	<0.1	0.0	0.0	0.0
	Aldrin	0.0000000	0.44	<0.1	0.0	0.0	0.0
	alpha-Chlordane	0.00010	5.45	<0.1	87.3	12.2	0.5
	Aroclor 1248	0.0035	1.55	<0.1	87.7	12.3	0.0
	Aroclor 1254	0.00000	0.08	<0.1	0.0	0.0	0.0
	Aroclor 1260	0.0011	0.76	<0.1	87.9	12.1	0.0
	beta-BHC	0.0000000	8.79	<0.1	0.0	0.0	0.0
	delta-BHC	0.0000000	3.52	<0.1	0.0	0.0	0.0
	Endosulfan I	0.00004	3.30	<0.1	86.8	13.2	0.0
	Endosulfan Sulfate	0.000000	3.30	<0.1	0.0	0.0	0.0
	Endrin Aldehyde	0.000000	0.11	<0.1	0.0	0.0	0.0
	gamma-Chlordane	0.00006	5.45	<0.1	87.3	12.2	0.5
	HAZARD INDEX			*0.00*	*87.8*	*12.2*	*0.0*
	Inorganics						
X	Aluminum	363	58.27	6.2	45.1	54.8	0.1
X	Antimony	0.25	0.15	1.69	54.7	45.2	0.1
X	Arsenic	2.0	0.15	13.57	18.1	81.4	0.5
	Barium	2.2	11.84	0.18	46.4	53.2	0.4
	Beryllium	0.041	1.45	<0.1	54.7	45.2	0.1
	Cadmium	1.2	2.12	0.55	93.2	6.8	0.0
	Chromium	12	19.78	0.59	1.9	98.0	0.1
	Cobalt	0.57	10.99	<0.1	54.7	45.2	0.2
	Copper	8.6	33.43	0.26	10.1	89.7	0.2
	Cyanide	0.035	142	<0.1	54.8	45.2	0.0
X	Iron	677	7.01	96.6	47.8	52.0	0.2
	Lead	10	17.58	0.58	36.7	63.1	0.2
	Manganese	14	193.41	<0.1	10.6	88.5	0.9
	Mercury	0.054	0.070	0.76	31.9	67.9	0.2
	Nickel	0.90	87.91	<0.1	52.2	47.7	0.1
	Selenium	0.14	0.4	0.32	59.9	39.9	0.1
	Silver	0.026	398.25	<0.1	54.6	45.1	0.3
	Thallium	0.012	0.16	<0.1	54.0	44.6	1.5
X	Vanadium	1.8	0.43	4.15	54.7	45.2	0.1
	Zinc	39	351.65	0.11	65.2	34.5	0.4
	HAZARD INDEX			*125.8*	*44.6*	*55.2*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-240
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WH
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	NA	27	<0.1			
	Acetone	0.19	3736	<0.1	82.3	17.7	0.0
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	NA	17	<0.1			
	Trichloroethene	NA	8	<0.1			
	HAZARD INDEX			*0.000*	*82.3*	*17.7*	*0.0*
	Semivolatile Organics						
	2-Methylnaphthalene	NA	171	<0.1			
	Acenaphthylene	NA	159	<0.1			
	Anthracene	NA	1189	<0.1			
	Benzo(a)anthracene	NA	1.5	<0.1			
	Benzo(a)pyrene	NA	1.5	<0.1			
	Benzo(b)fluoranthene	NA	1.5	<0.1			
	Benzo(g,h,i)perylene	NA	159	<0.1			
	Benzo(k)fluoranthene	0.06	1.5	<0.1	86.0	14.0	0.0
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	NA	1.5	<0.1			
	Dibenz(a,h)anthracene	NA	1.5	<0.1			
	Dibenzofuran	NA	159	<0.1			
	Fluoranthene	NA	149	<0.1			
	Fluorene	NA	149	<0.1			
	Indeno(1,2,3-cd)pyrene	NA	1.5	<0.1			
	Naphthalene	0.00069	166	<0.1	0.0	0.0	100.0
	N-nitrosodiphenylamine	NA	330	<0.1			
	Phenanthrene	NA	159	<0.1			
	Pyrene	NA	159	<0.1			
	HAZARD INDEX			*0.04*	*86.0*	*14.0*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	NA	19	<0.1			
	4,4'-DDE	NA	2.3	<0.1			
	4,4'-DDT	NA	1.8	<0.1			
	Aldrin	NA	0.44	<0.1			
	alpha-Chlordane	0.0000005	5.4	<0.1	0.0	0.0	100.0
	Aroclor 1248	NA	1.5	<0.1			
	Aroclor 1254	NA	0.081	<0.1			
	Aroclor 1260	NA	0.76	<0.1			
	beta-BHC	NA	8.8	<0.1			
	delta-BHC	NA	3.5	<0.1			
	Endosulfan I	NA	3.3	<0.1			
	Endosulfan Sulfate	NA	3.3	<0.1			
	Endrin Aldehyde	NA	0.11	<0.1			
	gamma-Chlordane	0.0000003	5.4	<0.1	0.0	0.0	100.0
	HAZARD INDEX			*0.00*	*0.0*	*0.0*	*100.0*
	Inorganics						
X	Aluminum	303	58	5.2	45.1	54.8	0.2
X	Antimony	0.73	0.15	4.88	54.8	45.2	0.0
X	Arsenic	3.2	0.15	21.34	16.2	83.5	0.3
	Barium	2.2	12	0.18	46.4	53.2	0.4
	Beryllium	0.032	1.5	<0.1	54.7	45.2	0.1
	Cadmium	1.7	2.1	0.81	92.5	7.5	0.0
	Chromium	11	20	0.53	2.2	97.7	0.1
	Cobalt	0.58	11	<0.1	54.7	45.2	0.1
	Copper	7.9	33	0.24	10.8	89.0	0.2
	Cyanide	0.020	142	<0.1	54.8	45.2	0.0
X	Iron	1389	7.0	198.1	47.9	52.0	0.1
X	Lead	33	18	1.89	31.3	68.7	0.1
	Manganese	6.4	193	<0.1	13.2	84.8	2.0
	Mercury	0.023	0.070	0.33	62.2	37.3	0.6
	Nickel	0.96	88	<0.1	46.5	53.5	0.1
	Selenium	0.11	0.44	0.24	62.0	37.8	0.2
	Silver	0.009	398	<0.1	54.3	44.9	0.8
	Thallium	0.023	0.16	0.14	54.3	44.9	0.8
X	Vanadium	2.6	0.43	6.15	54.7	45.2	0.1
	Zinc	58	352	0.17	54.4	45.4	0.2
	HAZARD INDEX			*240.3*	*45.2*	*54.6*	*0.1*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-241
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
STATION WS
WELLS G&H SUPERFUND SITE OU3

COPC		Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Inorganics						
X	Aluminum	237	58	4.1	45.1	54.7	0.2
	Antimony	0.14	0.15	0.91	54.7	45.2	0.2
X	Arsenic	1.8	0.15	11.80	18.8	80.6	0.6
	Barium	3.2	12	0.27	46.4	53.3	0.3
	Beryllium	0.018	1.5	<0.1	54.7	45.2	0.2
	Cadmium	1.8	2.1	0.83	92.5	7.5	0.0
	Chromium	9.2	20	0.47	2.5	97.4	0.1
	Cobalt	0.69	11	<0.1	54.7	45.2	0.1
	Copper	5.9	33	0.18	13.3	86.5	0.3
	Cyanide	5.9	142	<0.1	54.8	45.2	0.0
X	Iron	883	7.0	125.9	47.8	52.0	0.2
	Lead	7.4	18	0.42	38.3	61.5	0.2
	Manganese	17	193	<0.1	10.1	89.2	0.8
	Mercury	0.033	0.070	0.46	47.9	51.7	0.4
	Nickel	0.91	88	<0.1	50.9	49.0	0.1
	Selenium	0.089	0.44	0.20	63.3	36.5	0.2
	Silver	0.0062	398	<0.1	54.2	44.7	1.1
	Thallium	0.030	0.16	0.18	54.4	45.0	0.6
X	Vanadium	1.2	0.43	2.86	54.7	45.2	0.1
	Zinc	57	352	0.16	55.1	44.6	0.2
	HAZARD INDEX			*148.9*	*45.7*	*54.1*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-242
AVERAGE EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
WETLAND REFERENCE (STATION 24)
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.0038	26.59	<0.1	82.9	2.8	14.3
	Acetone	0.0134	3736.31	<0.1	92.7	3.2	4.1
	cis-1,2-Dichloroethene	0.0048	6844.04	<0.1	94.7	3.0	2.3
	Tetrachloroethene	0.0055	16.65	<0.1	95.1	2.9	2.0
	Trichloroethene	0.0039	8.32	<0.1	94.3	2.9	2.8
	HAZARD INDEX			*0.00*	*92.9*	*2.9*	*4.3*
	Semivolatile Organics						
	2-Methylnaphthalene	0.086	170.89	<0.1	96.6	2.8	0.6
	Acenaphthylene	0.108	158.52	<0.1	96.7	2.8	0.5
	Anthracene	0.20	1189.21	<0.1	97.0	2.7	0.3
	Benzo(a)anthracene	0.64	1.55	0.41	97.3	2.6	0.1
	Benzo(a)pyrene	0.59	1.55	0.38	97.3	2.6	0.1
	Benzo(b)fluoranthene	1.07	1.55	0.69	97.4	2.5	0.1
	Benzo(g,h,i)perylene	0.19	158.52	<0.1	97.2	2.5	0.3
	Benzo(k)fluoranthene	0.99	1.55	0.64	97.4	2.5	0.1
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
	Chrysene	0.76	1.55	0.49	97.3	2.6	0.1
	Dibenz(a,h)anthracene	0.112	1.55	<0.1	96.9	2.6	0.5
	Dibenzofuran	0.159	158.52	<0.1	96.9	2.8	0.3
	Fluoranthene	1.53	148.65	<0.1	97.3	2.7	0.0
	Fluorene	0.25	148.65	<0.1	97.0	2.8	0.2
	Indeno(1,2,3-cd)pyrene	0.26	1.55	0.17	97.4	2.4	0.2
	Naphthalene	0.096	166.49	<0.1	96.6	2.9	0.6
	N-nitrosodiphenylamine	0.155	329.67	<0.1	96.7	2.9	0.4
	Phenanthrene	1.08	158.52	<0.1	97.2	2.7	0.1
	Pyrene	1.19	158.52	<0.1	97.3	2.7	0.0
	HAZARD INDEX			*2.89*	*97.3*	*2.6*	*0.1*
	Pesticides and PCBs						
	4,4'-DDD	0.045	18.68	<0.1	97.4	2.6	0.0
	4,4'-DDE	0.0059	2.26	<0.1	97.2	2.6	0.2
	4,4'-DDT	0.0164	1.76	<0.1	97.4	2.6	0.1
	Aldrin	0.00038	0.44	<0.1	96.0	2.5	1.5
	alpha-Chlordane	0.00089	5.45	<0.1	96.8	2.5	0.6
	Aroclor 1248	0.031	1.55	<0.1	97.1	2.6	0.4
	Aroclor 1254	0.0078	0.08	<0.1	96.1	2.5	1.4
	Aroclor 1260	0.024	0.76	<0.1	97.0	2.5	0.5
	beta-BHC	0.00035	8.79	<0.1	95.7	2.8	1.6
	delta-BHC	0.00042	3.52	<0.1	95.9	2.7	1.3
	Endosulfan I	0.00035	3.30	<0.1	95.7	2.7	1.6
	Endosulfan Sulfate	0.00111	3.30	<0.1	96.2	2.8	1.0
	Endrin Aldehyde	0.00112	0.11	<0.1	96.4	2.6	1.0
	gamma-Chlordane	0.00103	5.45	<0.1	97.4	2.6	0.0
	HAZARD INDEX			*0.17*	*96.5*	*2.5*	*1.0*
	Inorganics						
X	Aluminum	185	58.27	3.17	45.1	54.8	0.0
	Antimony	0.021	0.15	0.14	54.4	45.0	0.6
X	Arsenic	0.19	0.15	1.28	31.9	67.7	0.4
	Barium	1.1	11.84	<0.1	46.2	53.0	0.9
	Beryllium	0.018	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.32	2.12	0.15	95.0	5.0	0.0
	Chromium	1.9	19.78	<0.1	13.9	86.1	0.0
	Cobalt	0.23	10.99	<0.1	54.8	45.2	0.0
	Copper	1.2	33.43	<0.1	39.8	60.2	0.1
	Cyanide	0.012	141.90	<0.1	52.3	43.2	4.4
X	Iron	369	7.01	52.58	47.8	52.0	0.2
	Lead	6.7	17.58	0.38	38.8	61.1	0.0
	Manganese	2.1	193.41	<0.1	17.5	77.1	5.4
	Mercury	0.016	0.07	0.23	78.9	20.9	0.2
	Nickel	0.78	87.91	<0.1	70.2	29.8	0.1
	Selenium	0.032	0.44	<0.1	70.3	29.0	0.6
	Silver	0.030	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.013	0.16	<0.1	54.1	44.7	1.3
X	Vanadium	1.5	0.43	3.55	54.8	45.2	0.0
	Zinc	15	351.65	<0.1	87.5	12.5	0.0
	HAZARD INDEX			*61.94*	*48.0*	*51.9*	*0.2*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-243
MAXIMUM EXPOSURE CASE HAZARD QUOTIENTS FOR SHREW
WETLAND REFERENCE (STATION 24)
WELLS G&H SUPERFUND SITE OU3

	COPC	Total Dose (mg/kg-day)	RTV (mg/kg-day)	Total HQ	Percent Earthworm HQ	Percent Surface Soil HQ	Percent Surface Water HQ
	Volatile Organics						
	2-Butanone	0.0058	26.6	<0.1	84.9	2.8	12.2
	Acetone	0.027	3736	<0.1	96.7	3.3	0.0
	cis-1,2-Dichloroethene	NA	6844	<0.1			
	Tetrachloroethene	0.0139	16.6	<0.1	95.4	2.9	1.7
	Trichloroethene	0.0052	8.3	<0.1	92.7	2.8	4.5
	HAZARD INDEX			*0.002*	*93.1*	*2.9*	*4.1*
	Semivolatile Organics						
	2-Methylnaphthalene	0.127	171	<0.1	96.8	2.8	0.4
	Acenaphthylene	0.31	159	<0.1	97.0	2.8	0.2
	Anthracene	0.74	1189	<0.1	97.2	2.8	0.1
X	Benzo(a)anthracene	2.5	2	1.64	97.3	2.6	0.0
X	Benzo(a)pyrene	2.33	2	1.51	97.4	2.6	0.0
X	Benzo(b)fluoranthene	4.6	1.55	2.95	97.4	2.5	0.0
	Benzo(g,h,i)perylene	0.31	158.52	<0.1	97.3	2.5	0.2
X	Benzo(k)fluoranthene	4.7	1.55	3.01	97.5	2.5	0.0
	Carbazole	(a)	(a)	(a)	(a)	(a)	(a)
X	Chrysene	3.1	1.55	2.03	97.3	2.6	0.0
	Dibenz(a,h)anthracene	0.167	2	0.11	97.1	2.6	0.3
	Dibenzofuran	0.44	158.52	<0.1	97.1	2.8	0.1
	Fluoranthene	7.0	148.65	<0.1	97.3	2.7	0.0
	Fluorene	0.61	149	<0.1	97.1	2.8	0.1
	Indeno(1,2,3-cd)pyrene	0.71	2	0.46	97.5	2.4	0.1
	Naphthalene	0.155	166	<0.1	96.8	2.9	0.4
	N-nitrosodiphenylamine	0.86	329.67	<0.1	97.0	2.9	0.1
	Phenanthrene	5.4	159	<0.1	97.2	2.8	0.0
	Pyrene	5.0	159	<0.1	97.3	2.7	0.0
	HAZARD INDEX			*11.83*	*97.4*	*2.6*	*0.0*
	Pesticides and PCBs						
	4,4'-DDD	0.19	18.7	<0.1	97.4	2.6	0.0
	4,4'-DDE	0.0110	2.26	<0.1	97.1	2.6	0.3
	4,4'-DDT	0.062	1.8	<0.1	97.4	2.6	0.0
	Aldrin	0.00057	0.44	<0.1	96.1	2.5	1.3
	alpha-Chlordane	0.0020	5.45	<0.1	97.1	2.6	0.4
	Aroclor 1248	0.139	1.55	<0.1	97.2	2.6	0.2
	Aroclor 1254	0.0113	0.08	0.14	94.8	2.5	2.7
	Aroclor 1260	0.098	0.76	1.30E-01	97.2	2.5	0.3
	beta-BHC	0.00018	8.79	<0.1	93.1	2.7	4.2
	delta-BHC	0.00052	3.52	<0.1	95.8	2.7	1.5
	Endosulfan I	0.00011	3.30	<0.1	90.2	2.6	7.2
	Endosulfan Sulfate	0.0022	3.30	<0.1	95.8	2.8	1.4
	Endrin Aldehyde	0.0022	0.11	<0.1	96.0	2.6	1.4
	gamma-Chlordane	0.0017	5.45	<0.1	97.0	2.6	0.4
	HAZARD INDEX			*0.43*	*96.4*	*2.5*	*1.1*
	Inorganics						
X	Aluminum	278	58.27	4.8	44.7	54.3	1.0
	Antimony	0.034	0.15	0.23	45.4	37.5	17.0
X	Arsenic	0.30	0.15	1.97	28.7	69.8	1.4
	Barium	1.7	11.84	0.14	46.3	53.1	0.7
	Beryllium	0.028	1.45	<0.1	54.7	45.2	0.1
	Cadmium	0.48	2.12	0.23	94.5	5.5	0.0
	Chromium	5	19.78	0.27	4.5	95.4	0.1
	Cobalt	0.34	10.99	<0.1	54.4	44.9	0.7
	Copper	1.7	33.43	<0.1	31.3	68.4	0.3
	Cyanide	NA	142	<0.1			
X	Iron	539	7.01	76.9	47.5	51.6	0.9
	Lead	10	17.58	0.58	36.6	62.9	0.6
	Manganese	3.4	193.41	<0.1	15.0	76.0	9.0
	Mercury	0.023	0.070	0.33	62.2	37.7	0.1
	Nickel	0.84	87.91	<0.1	59.6	40.2	0.2
	Selenium	0.062	0.4	0.14	65.8	33.7	0.5
	Silver	0.08	398.25	<0.1	54.7	45.2	0.1
	Thallium	0.020	0.16	0.12	54.3	44.9	0.8
X	Vanadium	2.7	0.43	6.31	54.7	45.2	0.1
	Zinc	18	351.65	<0.1	84.1	15.8	0.2
	HAZARD INDEX			*92.2*	*47.4*	*51.6*	*0.9*

NOTES:
HQ = Hazard quotient
RTV = Reference Toxicity Value
X = Indicates a COPC with a HQ >= 1.
0.0 = Indicates COPC was not detected in medium, or that the detected concentration was low, contributing less than 0.05% of the Total HQ.
Total Dose = Sum of exposure from ingestion of food (animal), sediment, and water.
(a) Carbazole lacks a BCF, therefore dose calculations could not be carried through.

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TABLE 4-244
HAZARD QUOTIENT SUMMARY FOR SHREW [1]
AVERAGE EXPOSURE CASE

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT										
			Aroclor 1254	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Iron	Lead	Mercury	Thallium	Vanadium
	Wetland	Reference[2]		3		1.3			53				4
20	Wetland	1		10		15	1.2	1.0	116				6
21	Wetland	1		5		9	1.2	2	74		2		3
22/TT-22	Wetland	1		2	13	1.3			14	6			2
BW	Wetland	1		7	4	59			378		1.4	1.4	5
CB-01	Wetland	2		5		2			37				3
CB-02	Wetland	2		2		2			20				2
CB-03	Wetland	2		4		14			105				3
CB-04	Wetland	2		4		6			81				4
CB-05	Wetland	2		2		2			34				1.4
CB-06	Wetland	2		3		5			43				3
DA	River	2		3		5			57				2
NRSE	Wetland	1		3		9			66				2
JY	Wetland	1	5	4		8			96				3
NRSO	River	1		2		6			58				
KFSO	River	2		2		2			50				2
WSS	Wetland	1		3					31				1.2
WG	Wetland	1		5	1.1	7			69				3
WH	Wetland	1		4	4	6			84	2			5
WS	River	1		3		9			101				2
% of OU3 stations (non-reference) with HQ>1				100	21	95	11	11	100	11	11	5	95

1. Only COPCs having one or more station with HQ>1 are presented.
A blank cell indicates that the HQ <1.0
2. Referece stations include 24, HB, and SA.

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TABLE 4-245
HAZARD QUOTIENT SUMMARY FOR SHREW[1]
MAXIMUM EXPOSURE CASE [2]
WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT										
			Aroclor 1254	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Iron	Lead	Mercury	Thallium	Vanadium
	Wetland	Reference[3]		5		2			77				6
20	Wetland	1		11		16	1	1	148	1			7
21	Wetland	1		7		13	1	3	95		3		5
22/TT-22	Wetland	1		4	60	4			31	29			3
BW	Wetland	1		8	11	142		1	506		3	2	6
CB-01	Wetland	2		6		3			63				5
CB-02	Wetland	2		2		2			23				2
CB-03	Wetland	2		4		29			171				4
CB-04	Wetland	2		4		10			135				4
CB-05	Wetland	2		2		3			39				2
CB-06	Wetland	2		3		7	1		55				5
DA	River	2		4		10			113				2
NRSE	Wetland	1		3		11			82		1		2
JY	Wetland	1	7	5	4	15	1		130				4
NRSO	River	1		3		11			97				2
KFSO	River	2		2		3			58				2
WSS	Wetland	1		4					37				2
WG	Wetland	1		6	2	14			97				4
WH	Wetland	1		5	5	21			198	2			6
WS	Riparian	1		4		12			126				3
% of OU3 stations (non-reference) with HQ>1			5	100	26	95	21	16	100	16	16	5	100

1. Only COPCs having one or more station with HQ>1 are presented.
2. HQs were calculated using 95% UCL values for surface water and sediment data. Where 95% UCLs could not be calculated (number of samples <4), maximum station values were used.
3. Reference stations include 24, HB, and SA.
4. A blank cell indicates that the HQ <1.0

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TABLE 4-246
COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS
REACH 2
WELLS G&H SUPERFUND SITE OU3

	White Sucker - Whole Body														
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. µg/g lipid	Reference Average Conc. µg/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
SVOCs															
Benzo(g,h,i)perylene	nd	nd		nd	nd		29.56	*Cyprinus carpio* (common carp)	Physiological	NOED	Liver	Injection	na	No significant increase in EROD enzyme and CYP 1A protein content.	URS218
Pesticides															
4,4'-DDD	0.028	0.064	0.44	0.72	1.4	0.51	0.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDE	0.044	0.10	0.43	1.1	2.0	0.56	na								
4,4'-DDT	0.0069	0.0086	0.81	0.18	0.20	0.90	12.2	*Pimephales promelas* (fathead minnow)	Reproduction	NOED	Whole Body	Ingestion	Adult	Hatchability	JA219
Aldrin	0.0013	0.0023	0.55	0.032	0.071	0.45	na								
alpha-Chlordane	0.018	0.016	1.1	0.46	0.37	1.2	na								
Aroclor-1248	0.013	0.022	0.56	0.32	0.69	0.46	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.08	0.13	0.61	0.0003	0.0003	1.29	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.12	0.19	0.63	3.1	3.7	0.82	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.0013	0.0023	0.55	0.032	0.071	0.45	na								
delta-BHC	0.0013	0.0023	0.55	0.032	0.071	0.45	na								
Endosulfan I	0.0013	0.0032	0.39	0.032	0.082	0.39	na								
Endosulfan sulfate	0.0025	0.0045	0.55	0.063	0.14	0.45	na								
Endrin aldehyde[4]	0.0025	0.0071	0.35	0.063	0.17	0.38	0.08	*Lepomis macrochirus* (bluegill)	Growth	NOED	Whole Body	Absorption	na	No increase in mortality	JA23
gamma-Chlordane	0.011	0.011	1.0	0.28	0.28	1.0	na								
Inorganics															
Aluminum	2.1	8.5	0.24				na								
Antimony	0.055	0.084	0.66				na								
Arsenic	0.050	0.048	1.0				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.46	0.73	0.63				na								
Cadmium	0.048	0.12	0.40				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.28	0.16	1.8				na								
Cobalt	0.025	0.065	0.38				na								
Copper	0.79	0.63	1.3				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	27	31	0.85				na								
Lead	0.34	0.25	1.4				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffetive feeding behaviors	URS230
Manganese	5.9	2.0	3.0				na								
Mercury	0.063	0.019	3.2	1.6	0.40	4.1	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Nickel	0.025	0.023	1.1				na								
Selenium	0.93	0.68	1.4				3	*Micropterus salmoides* (largemouth bass)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on survivorship	URS160
Silver	0.020	0.018	1.1				0.12	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Water	Juvenile	na	JA88
Zinc	44	19	2.3				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinadae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin
a Test involved PCBs, specific congeners not indicated

TABLE 4-247
COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS
REACH 3
WELLS G&H SUPERFUND SITE OU3

	Largemouth Bass - Fillet						Largemouth Bass - Offal													
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
SVOCs																					
Benzo(g,h,i)perylene	0.29	0.52	0.56	56	137	0.41	nd	nd		nd	nd		29.56	*Cyprinus carpio* (common carp)	Physiological	NOED	Liver	Injection	na	No significant increase in EROD enzyme and CYP 1A protein content.	URS218
Pesticides																					
4,4'-DDD	0.0037	0.00073	5.0	0.63	0.19	3.4	0.029	0.0052	5.6	1.2	0.24	4.9	0.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDE	0.013	0.0070	1.9	2.0	1.8	1.1	0.063	0.053	1.2	4.1	2.7	1.5	na								
4,4'-DDT	0.0021	0.00073	2.8	0.26	0.19	1.4	0.0073	0.0048	1.5	0.55	0.23	2.4	12.2	*Pimephales promelas* (fathead minnow)	Reproduction	NOED	Whole Body	Ingestion	Adult	Hatchability	JA219
Aldrin	0.00069	0.00038	1.8	0.098	0.097	1.0	0.0021	0.0022	1.0	0.26	0.11	2.4	na								
alpha-Chlordane	0.0024	0.00040	6.0	0.41	0.10	4.1	0.015	0.0027	5.6	0.71	0.12	5.8	na								
Aroclor-1248	0.0067	0.0037	1.8	0.95	0.95	1.0	0.041	0.021	1.9	2.9	1.1	2.7	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.02	0.004	4.3	0.0002	0.0001	2.9	0.10	0.02	4.7	0.0004	0.0001	5.6	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.051	0.012	4.1	7.7	3.760	2.0	0.21	0.092	2.3	16	5.5	2.9	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.00069	0.00038	1.8	0.098	0.097	1.0	0.0021	0.0022	1.0	0.26	0.11	2.4	na								
delta-BHC	0.00069	0.00038	1.8	0.098	0.097	1.0	0.0021	0.0022	1.0	0.26	0.11	2.4	na								
Endosulfan I	0.00069	0.00038	1.8	0.098	0.097	1.0	0.0031	0.0022	1.4	0.27	0.11	2.5	na								
Endosulfan sulfate	0.0013	0.00073	1.8	0.19	0.19	1.0	0.0046	0.0043	1.1	0.50	0.21	2.4	na								
Endrin aldehyde	0.0019	0.00073	2.6	0.24	0.19	1.3	0.0045	0.0043	1.0	0.54	0.21	2.5	0.08	*Lepomis macrochirus* (bluegill)	Growth	NOED	Whole Body	Absorption	na	No increase in mortality	JA23
gamma-Chlordane	0.0012	0.00038	3.3	0.22	0.097	2.3	0.0085	0.0022	3.9	0.41	0.11	3.8	na								
Inorganics																					
Aluminum	0.66	0.78	0.84				5.5	1.2	4.8				na								
Antimony	0.058	0.052	1.1				0.053	0.051	1.0				na								
Arsenic	0.044	0.048	0.92				0.060	0.045	1.3				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.066	0.079	0.84				1.4	0.80	1.7				na								
Cadmium	0.0076	0.0070	1.1				0.031	0.023	1.3				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.055	0.071	0.78				0.58	0.31	1.9				na								
Cobalt	0.024	0.035	0.69				0.054	0.042	1.3				na								
Copper	0.27	0.12	2.3				2.5	0.34	7.3				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	1.9	2.8	0.67				39	16	2.4				na								
Lead	0.039	0.038	1.0				0.036	0.033	1.1				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffetive feeding behaviors	URS230
Manganese	0.11	0.11	1.0				3.0	4.7	0.63				na								
Mercury	**0.18**	**0.50**	0.36	20.8825	146.558	0.1	0.071	**0.33**	0.22	9.8	22	0.44	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Nickel	0.023	0.023	1.0				0.024	0.022	1.1				na								
Selenium	0.62	0.61	1.0				0.65	0.72	0.91				3	*Micropterus salmoides* (largemouth bass)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on survivorship	URS160
Silver	0.020	0.019	1.1				0.021	0.021	1.0				0.12	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Water	Juvenile	na	JA88
Zinc	5.4	3.8	1.4				30	20	1.5				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinadae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin
a Test involved PCBs, specific congeners not indicated

US EPA ARCHIVE DOCUMENT

TABLE 4-248
COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS
REACH 4
WELLS G&H SUPERFUND SITE OU3

	Largemouth Bass - Fillet						Largemouth Bass - Offal						White Sucker - Whole Body													
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
SVOCs																										
Benzo(g,h,i)perylene	0.77	0.52	1.5	217	137	1.6	nd	nd		nd	nd		nd	nd		nd	nd		29.56	*Cyprinus carpio* (common carp)	Physiological	NOED	Liver	Injection	na	No significant increase in EROD enzyme and CYP 1A protein content.	URS218
Pesticides																										
4,4'-DDD	0.0030	0.00073	4.0	0.79	0.19	4.2	0.037	0.0052	7.2	1.8	0.24	7.4	0.034	0.064	0.53	1.0	1.4	0.72	0.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDE	0.010	0.0070	1.5	3.0	1.8	1.6	0.12	0.053	2.2	6.0	2.7	2.2	0.069	0.10	0.67	2.0	2.0	1.0	na							
4,4'-DDT	0.0013	0.00073	1.7	0.37	0.19	2.0	0.013	0.0048	2.7	0.65	0.23	2.8	0.0087	0.0086	1.0	0.26	0.20	1.3	12.2	*Pimephales promelas* (fathead minnow)	Reproduction	NOED	Whole Body	Ingestion	Adult	Hatchability	JA219
Aldrin	0.00038	0.00038	1.0	0.11	0.097	1.1	0.0023	0.0022	1.1	0.11	0.11	1.0	0.0027	0.0023	1.2	0.082	0.071	1.2	na							
alpha-Chlordane	0.0019	0.00040	4.7	0.49	0.10	4.9	0.019	0.0027	7.0	0.89	0.12	7.3	0.027	0.016	1.7	0.81	0.37	2.2	na							
Aroclor-1248	0.0035	0.0037	0.94	1.0	0.95	1.1	0.010	0.021	0.49	0.50	1.1	0.47	0.020	0.022	0.89	0.66	0.69	1.0	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.03	0.004	7.3	0.001	0.0001	8.5	0.25	0.02	11.8	0.001	0.0001	15.53	0.15	0.13	1.2	0.001	0.0003	1.9	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.028	0.012	2.2	7.9	3.8	2.1	0.29	0.092	3.2	15	5.5	2.7	0.20	0.19	1.0	6.1	3.7	1.6	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.00035	0.00038	0.94	0.11	0.097	1.1	0.0011	0.0022	0.50	0.052	0.11	0.48	0.0020	0.0023	0.89	0.067	0.071	0.94	na							
delta-BHC	0.00035	0.00038	0.94	0.11	0.097	1.1	0.0011	0.0022	0.48	0.050	0.11	0.46	0.0020	0.0023	0.88	0.067	0.071	0.94	na							
Endosulfan I	0.00035	0.00038	0.94	0.11	0.097	1.1	0.0013	0.0022	0.60	0.061	0.11	0.56	0.0024	0.0032	0.75	0.075	0.082	0.91	na							
Endosulfan sulfate	0.00070	0.00073	0.95	0.21	0.19	1.1	0.0023	0.0043	0.55	0.11	0.21	0.52	0.0041	0.0045	0.92	0.13	0.14	1.0	na							
Endrin aldehyde	0.00087	0.00073	1.2	0.25	0.19	1.3	0.0082	0.0043	1.9	0.41	0.21	1.9	0.0057	0.0071	0.81	0.18	0.17	1.0	0.08	*Lepomis macrochirus* (bluegill)	Growth	NOED	Whole Body	Absorption	na	No increase in mortality	JA23
gamma-Chlordane	0.00075	0.00038	2.0	0.20	0.097	2.1	0.0074	0.0022	3.4	0.35	0.11	3.3	0.016	0.011	1.4	0.47	0.28	1.7	na							
Inorganics																										
Aluminum	0.76	0.78	1.0				1.5	1.2	1.3				7.6	8.5	0.89				na							
Antimony	0.052	0.052	1.0				0.049	0.051	1.0				0.044	0.084	0.53				na							
Arsenic	0.049	0.048	1.0				0.045	0.045	1.0				0.050	0.048	1.0				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.080	0.079	1.0				0.47	0.80	0.59				0.40	0.73	0.55				na							
Cadmium	0.012	0.0070	1.7				0.021	0.023	0.93				0.018	0.12	0.14				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.063	0.071	0.89				0.35	0.31	1.1				0.27	0.16	1.7				na							
Cobalt	0.028	0.035	0.81				0.022	0.042	0.52				0.026	0.065	0.39				na							
Copper	0.16	0.12	1.3				1.1	0.34	3.2				0.80	0.63	1.3				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	2.2	2.8	0.77				34	16	2.1				54	31	1.7				na							
Lead	0.042	0.038	1.1				0.033	0.033	1.0				0.21	0.25	0.83				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffetive feeding behaviors	URS230
Manganese	0.071	0.11	0.65				2.1	4.7	0.44				2.4	2.0	1.2				na							
Mercury	**0.17**	**0.50**	0.33	48	147	0.33	0.074	**0.33**	0.23	3.7	22	0.17	0.045	0.019	2.3	1.5	0.40	3.8	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Nickel	0.024	0.023	1.0				0.022	0.022	1.0				0.020	0.023	0.88				na							
Selenium	0.73	0.61	1.2				0.91	0.72	1.3				0.68	0.68	1.0				3	*Micropterus salmoides* (largemouth bass)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on survivorship	URS160
Silver	0.019	0.019	1.0				0.018	0.021	0.83				0.016	0.018	0.88				0.12	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Water	Juvenile	na	JA88
Zinc	6.3	3.8	1.6				26	20	1.3				22	19	1.1				na							

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinadae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin
a Test involved PCBs, specific congeners not indicated

US EPA ARCHIVE DOCUMENT

TABLE 4-249
COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS
REACH 5
WELLS G&H SUPERFUND SITE OU3

	Largemouth Bass - Fillet						Largemouth Bass - Offal						White Sucker - Whole Body														
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
SVOCs																											
Benzo(g,h,i)perylene	0.58	0.52	1.1	178	137	1.3	nd	nd		nd	nd		nd	nd		nd	nd		29.56	*Cyprinus carpio* (common carp)	Physiological	NOED	Liver	Injection	na	No significant increase in EROD enzyme and CYP 1A protein content.	URS218
Pesticides																											
4,4'-DDD	0.0083	0.00073	11	2.2	0.19	12	0.067	0.0052	13	3.9	0.24	16	0.028	0.064	0.4	0.94	1.4	0.67	0.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDE	0.044	0.0070	6.3	12	1.8	6.6	0.29	0.053	5.5	19	2.7	7.0	0.034	0.10	0.33	1.2	2.0	0.57	na								
4,4'-DDT	0.0057	0.00073	7.8	1.6	0.19	8.8	0.027	0.0048	5.7	2.1	0.23	9.2	0.0057	0.0086	0.66	0.19	0.20	1.0	12.2	*Pimephales promelas* (fathead minnow)	Reproduction	NOED	Whole Body	Ingestion	Adult	Hatchability	JA219
Aldrin	0.00089	0.00038	2.3	0.21	0.097	2.2	0.0018	0.0022	0.82	0.11	0.11	1.0	0.0025	0.0023	1.1	0.084	0.071	1.2	na								
alpha-Chlordane	0.0020	0.00040	5.1	0.54	0.10	5.4	0.026	0.0027	9.9	1.2	0.12	9.5	0.028	0.016	1.8	0.91	0.37	2.4	na								
Aroclor-1248	0.0087	0.0037	2.3	2.1	0.95	2.2	0.010	0.021	0.49	0.80	1.1	0.75	0.016	0.022	0.70	0.60	0.69	0.87	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.07	0.004	17.9	0.002	0.0001	20.6	0.37	0.02	17.1	0.002	0.0001	23.34	0.09	0.13	0.7	0.0003	0.0003	1.23	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.090	0.012	7.2	27	3.760	7.3	0.44	0.092	4.8	39	5.5	6.9	0.056	0.19	0.30	2.0	3.7	0.53	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.00088	0.00038	2.3	0.21	0.097	2.2	0.0011	0.0022	0.50	0.084	0.11	0.78	0.0016	0.0023	0.70	0.061	0.071	0.86	na								
delta-BHC	0.00088	0.00038	2.3	0.21	0.097	2.2	0.0010	0.0022	0.48	0.080	0.11	0.74	0.0016	0.0023	0.7	0.061	0.071	0.86	na								
Endosulfan I	0.00088	0.00038	2.3	0.21	0.097	2.2	0.0015	0.0022	0.70	0.096	0.11	0.89	0.0016	0.0032	0.5	0.061	0.082	0.74	na								
Endosulfan sulfate	0.0019	0.00073	2.6	0.48	0.19	2.6	0.0031	0.0043	0.73	0.28	0.21	1.3	0.0031	0.0045	0.7	0.12	0.14	0.86	na								
Endrin aldehyde	0.0035	0.00073	4.8	0.98	0.19	5.3	0.014	0.0043	3.2	1.1	0.21	5.1	0.0033	0.0071	0.5	0.12	0.17	0.74	0.08	*Lepomis macrochirus* (bluegill)	Growth	NOED	Whole Body	Absorption	na	No increase in mortality	JA23
gamma-Chlordane	0.0012	0.00038	3.1	0.30	0.097	3.1	0.0086	0.0022	3.9	0.43	0.11	4.0	0.018	0.011	1.6	0.60	0.28	2.15	na								
Inorganics																											
Aluminum	1.6	0.78	2.0				2.1	1.2	1.8				6.2	8.5	0.73				na								
Antimony	0.066	0.052	1.3				0.053	0.051	1.0				0.048	0.084	0.57				na								
Arsenic	0.049	0.048	1.0				0.063	0.045	1.4				0.084	0.048	1.7				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.077	0.079	1.0				0.43	0.80	0.53				0.42	0.73	0.58				na								
Cadmium	0.0067	0.0070	1.0				0.025	0.023	1.1				0.020	0.12	0.17				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.055	0.071	0.77				0.53	0.31	1.7				0.27	0.16	1.7				na								
Cobalt	0.023	0.035	0.65				0.032	0.042	0.76				0.052	0.065	0.80				na								
Copper	0.17	0.12	1.4				1.1	0.34	3.2				1.1	0.63	1.7				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	2.3	2.8	0.81				43	16	2.6				29	31	0.93				na								
Lead	0.037	0.038	1.0				0.060	0.033	1.9				0.041	0.25	0.16				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffective feeding behaviors	URS230
Manganese	0.074	0.11	0.68				2.6	4.7	0.56				8.9	2.0	4.5				na								
Mercury	**0.25**	**0.50**	0.50	85	147	0.58	0.133	**0.33**	0.41	16	22	0.71	0.026	0.019	1.4	0.91	0.40	2.3	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Nickel	0.023	0.023	1.0				0.16	0.022	7.3				0.022	0.023	1.0				na								
Selenium	0.51	0.61	0.83				0.65	0.72	0.91				0.65	0.68	1.0				3	*Micropterus salmoides* (largemouth bass)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on survivorship	URS160
Silver	0.022	0.019	1.2				0.022	0.021	1.0				0.017	0.018	1.0				0.12	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Water	Juvenile	na	JA88
Zinc	6.6	3.8	1.7				27	20	1.4				24	19	1.2				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinadae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin
a Test involved PCBs, specific congeners not indicated

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TABLE 4-250
COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS
REACH 6
WELLS G&H SUPERFUND SITE OU3

	Largemouth Bass - Fillet						Largemouth Bass - Offal													
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area(1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
SVOCs																					
Benzo(g,h,i)perylene	0.55	0.52	1.1	90	137	0.66	nd	nd		nd	nd		29.56	*Cyprinus carpio* (common carp)	Physiological	NOED	Liver	Injection	na	No significant increase in EROD enzyme and CYP 1A protein content.	URS218
Pesticides																					
4,4'-DDD	0.014	0.00073	20	2.1	0.19	11	0.12	0.0052	23	2.6	0.24	10	0.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDE	0.041	0.0070	5.9	6.0	1.8	3.3	0.35	0.053	6.6	7.5	2.7	2.8	na								
4,4'-DDT	0.0032	0.00073	4.4	0.47	0.19	2.5	0.026	0.0048	5.5	0.56	0.23	2.4	12.2	*Pimephales promelas* (fathead minnow)	Reproduction	NOED	Whole Body	Ingestion	Adult	Hatchability	JA219
Aldrin	0.0012	0.00038	3.2	0.18	0.097	1.9	0.0043	0.0022	2.0	0.093	0.11	0.86	na								
alpha-Chlordane	0.0058	0.00040	15	0.85	0.10	8.5	0.056	0.0027	21	1.2	0.12	9.7	na								
Aroclor-1248	0.011	0.0037	3.1	1.7	0.95	1.8	0.013	0.021	0.58	0.27	1.1	0.25	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.09	0.004	23.80	0.00	0.00	15.63	0.57	0.02	26.82	0.00	0.00	14.85	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.057	0.012	4.6	8.3	3.76	2.2	0.44	0.092	4.8	9.3	5.5	1.7	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.0012	0.00038	3.1	0.17	0.097	1.8	0.0018	0.0022	0.83	0.038	0.11	0.35	na								
delta-BHC	0.0012	0.00038	3.1	0.17	0.097	1.8	0.0013	0.0022	0.58	0.027	0.11	0.25	na								
Endosulfan I	0.0012	0.00038	3.1	0.17	0.097	1.8	0.0054	0.0022	2.5	0.11	0.11	1.1	na								
Endosulfan sulfate	0.0023	0.00073	3.2	0.35	0.19	1.9	0.0051	0.0043	1.2	0.10	0.21	0.49	na								
Endrin aldehyde	0.0023	0.00073	3.2	0.35	0.19	1.9	0.014	0.0043	3.3	0.30	0.21	1.4	0.08	*Lepomis macrochirus* (bluegill)	Growth	NOED	Whole Body	Absorption	na	No increase in mortality	JA23
gamma-Chlordane	0.0023	0.00038	6.0	0.33	0.097	3.4	0.018	0.0022	8.2	0.37	0.11	3.5	na								
Inorganics																					
Aluminum	0.55	0.78	0.70				0.60	1.2	0.52				na								
Antimony	0.046	0.052	0.89				0.047	0.051	0.92				na								
Arsenic	0.045	0.048	0.92				0.045	0.045	1.0				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.073	0.079	0.93				0.28	0.80	0.34				na								
Cadmium	0.013	0.0070	1.9				0.019	0.023	0.83				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.075	0.071	1.0				0.34	0.31	1.1				na								
Cobalt	0.021	0.035	0.61				0.021	0.042	0.51				na								
Copper	0.14	0.12	1.2				0.50	0.34	1.5				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	1.8	2.8	0.65				21	16	1.3				na								
Lead	0.040	0.038	1.1				0.10	0.033	3.1				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffetive feeding behaviors	URS230
Manganese	0.052	0.11	0.47				2.0	4.7	0.42				na								
Mercury	**0.17**	**0.50**	0.34	28	147	0.19	0.11	**0.33**	0.34	2.3	22	0.10	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Nickel	0.021	0.023	0.92				0.021	0.022	1.0				na								
Selenium	0.59	0.61	1.0				0.75	0.72	1.0				3	*Micropterus salmoides* (largemouth bass)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on survivorship	URS160
Silver	0.017	0.019	0.92				0.022	0.021	1.0				0.12	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Water	Juvenile	na	JA88
Zinc	5.6	3.8	1.5				21	20	1.1				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinadae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin
a Test involved PCBs, specific congeners not indicated

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TABLE 4-251
COMPARISON OF COPC CONCENTRATIONS IN PUMPKINSEED TISSUE TO REFERENCE SAMPLES AND TISSUE RESIDUE BENCHMARKS

WELLS G&H SUPERFUND SITE OU3

	Pumpkinseed - Whole Body														
Chemical of Potential Concern	Study Area Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio	Study Area (1) Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio	Tissue Benchmark Conc. mg/kg	Species (2)	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID (3)
Pesticides															
4,4'-DDD	0.024	0.0025	9.6	1.1	0.14	8.2	na								
4,4'-DDE	0.028	0.017	1.6	1.3	0.92	1.5	19.6	*Pimephales promelas* (fathead minnow)	Reproduction	LOED	Whole Body	Combined	Adult	Sig. different from control	JAW4
4,4'-DDT	0.0048	0.0025	1.9	0.23	0.14	1.7	4.2	*Lepomis macrochirus* (bluegill)	Behavior	LOED	Whole Body	Absorption	Immature	Behavioral changes, loss of equilibrium, convulsions	URS86
Aldrin	0.0022	0.0017	1.3	0.11	0.088	1.2	na								
alpha-Chlordane	0.013	0.0013	10	0.59	0.069	8.6	na								
Aroclor-1248	0.028	0.016	1.8	1.4	0.86	1.6	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
Aroclor-1254	0.090	0.008	11.1	0.0004	0.00005	9.5	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Aroclor-1260	0.065	0.022	3.0	3.2	1.2	2.6	3.7999 [a]	*Ictalurus punctatus* (channel catfish)	Growth	LOED	Brain	Ingestion	Immature	40% reduction in mean weight	URS104
beta-BHC	0.0026	0.0017	1.5	0.13	0.088	1.4	na								
delta-BHC	0.0023	0.0017	1.4	0.11	0.088	1.3	na								
Endosulfan I	0.0026	0.0016	1.6	0.13	0.081	1.6	na								
Endosulfan sulfate	0.0047	0.0032	1.5	0.23	0.17	1.4	na								
Endrin aldehyde [(4)]	0.0045	0.0032	1.4	0.23	0.17	1.3	na								
gamma-Chlordane	0.0035	0.0017	2.1	0.17	0.088	1.9	4,240	*Brachydanio rerio* (zerba fish)	Growth	NOED	Whole Body	Water	na	Weight	JA41
Inorganics															
Aluminum	13	6.4	2.1				na								
Antimony	0.10	0.10	0.98				na								
Arsenic	0.30	0.10	3.0				0.52	*Lepomis macrochirus* (bluegill)	Mortality	NOED	Whole Body	Absorption	Immature	No effect on mortality	URS10
Barium	0.87	4.4	0.20				na								
Cadmium	0.025	0.017	1.5				0.9	*Cyprinodon variegatus* (sheepshead minnow)	Development	LOED	Whole Body	Absorption	Egg-embryo	Decreased time to hatch	URS198
Chromium	0.32	0.33	1.0				na								
Cobalt	0.056	0.047	1.2				na								
Copper	0.90	0.60	1.5				13	*Lepomis macrochirus* (bluegill)	Growth	LOED	Gill	Combined	Immature	Effect on growth - over 22 month period	JB5
Iron	42	45	0.94				na								
Lead	0.15	0.070	2.2				0.451	*Pimephales promelas* (fathead minnow)	Behavior	LOED	Brain	Absorption	Immature	Sig. reduction in feeding rate and ineffetive feeding behaviors	URS230
Manganese	11	21	0.50				na								
Mercury	0.033	0.081	0.41	1.6	4.5	0.36	0.135	*Perca flavescens* (yellow perch)	Growth	NOED	Whole Body	Combined	Adult	No effect after 2 years, tissue concentration after one year	URS232
Selenium	0.76	0.60	1.3				4	*Lepomis macrochirus* (bluegill)	Reproduction	NOED	Whole Body	Combined	Adult	No effect on percent hatch	JA95
Zinc	28	34	0.80				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database
NOED - no observed effect dose
LOED - lowest observed effect dose
nd - not detected in this data set
Ratio = study area average concentration divided by reference average concentration
(1) With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
(2) ERED database records of several freshwater fish were queried - members of Ictaluridae, Centrachidae, Cyprinidae, Percidae, and Esocidae.
(3) Citations for primary references are provided in the ERED database
(4) Value for Endrin

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TABLE 4-252
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 1 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	6,530	SCV	78	0.0	275	15	0.0	290	0.0
Acetone	210	SCV	607	2.9	1784	6	8.5	4,300	20.4
cis-1,2-Dichloroethene	9,674	SCV	113	0.0	196	3	0.0	562	0.1
Tetrachloroethene	9,916	SCV	222	0.0	464	6	0.0	3,164	0.3
Trichloroethene	5,321	SCV	133	0.0	860	15	0.2	2,025	0.4
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	3,144	SCV	254	0.1	140	*3	0.0	140	0.0
Acenaphthylene	640	ERM	249	0.4	38	*15	0.1	38	0.1
Anthracene	37,000	SEL	279	0.0	376	3	0.0	660	0.0
Benzo(a)anthracene	148,000	SEL	511	0.0	652	5	0.0	1,700	0.0
Benzo(a)pyrene	144,000	SEL	624	0.0	773	3	0.0	1,900	0.0
Benzo(b)fluoranthene [c]	134,000	SEL	1,017	0.0	1338	5	0.0	3,700	0.0
Benzo(g,h,i)perylene	32,000	SEL	466	0.0	578	5	0.0	1,600	0.1
Benzo(k)fluoranthene	32,000	SEL	649	0.0	796	3	0.0	3,400	0.1
Carbazole	N/A	N/A	424	N/A	170	*5	N/A	170	N/A
Chrysene	46,000	SEL	680	0.0	874	5	0.0	2,200	0.0
Dibenz(a,h)anthracene	13,000	SEL	321	0.0	411	3	0.0	430	0.0
Dibenzofuran	10,158	SCV	439	0.0	605	5	0.1	N/A	N/A
Fluoranthene	102,000	SEL	1188	0.0	1498	3	0.0	5,200	0.1
Fluorene	16,000	SEL	281	0.0	240	*3	0.0	240	0.0
Indeno(1,2,3-cd)pyrene	32,000	SEL	492	0.0	638	5	0.0	1,500	0.0
Naphthalene	5,804	SCV	368	0.1	555	3	0.1	2,500	0.4
N-nitrosodiphenylamine	N/A	N/A	439	N/A	560	*3	N/A	560	N/A
Phenanthrene	95,000	SEL	596	0.0	743	3	0.0	2,700	0.0
Pyrene	85,000	SEL	958	0.0	1332	5	0.0	4,000	0.0
Pesticides and PCBs (ug/kg)									
4,4'-DDD	600	SEL	26	0.0	109	15	0.2	310	0.5
4,4'-DDE	1,900	SEL	19	0.0	34	5	0.0	160	0.1
4,4'-DDT	1,200	SEL	2.9	0.0	3.7	3	0.0	12	0.0
Aldrin	800	SEL	1.7	0.0	2.6	3	0.0	18	0.0
alpha-Chlordane [d]	600	SEL	12	0.0	41	15	0.1	93	0.2
Aroclor 1248	15,000	SEL	86	0.0	125	5	0.0	560	0.0
Aroclor 1254	3,400	SEL	240	0.1	1075	15	0.3	2,600	0.8
Aroclor 1260	2,400	SEL	299	0.1	1136	15	0.5	2,400	1.0
beta-BHC	2,100	SEL	1.4	0.0	3.1	*15	0.0	3.1	0.0
delta-BHC [e]	1,200	SEL	1.7	0.0	7.0	15	0.0	15	0.0
Endosulfan I	133	SCV	7.4	0.1	31	15	0.2	68	0.5
Endosulfan Sulfate	133	SCV	2.5	0.0	0.72	*3	0.0	0.7	0.0
Endrin Aldehyde [f]	13,000	SEL	3.8	0.0	6.3	13	0.0	12	0.0
gamma-Chlordane [d]	600	SEL	21	0.0	24	6	0.0	650	1.1

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TABLE 4-252 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATION IN REACH 1 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	12,448	0.5	13543	3	0.5	34,400	1.3
Antimony [g]	25	ERM	14	0.6	34	14	1.4	329	13.2
Arsenic	33	SEL	439	13.3	757	5	22.9	4,550	138
Barium	N/A	NOAA SB	122.0	N/A	123	5	N/A	3,420	N/A
Beryllium	N/A	N/A	0.9	N/A	1.1	13	N/A	2.9	N/A
Cadmium	10	SEL	8.4	0.8	12	14	1.2	37	3.7
Chromium	110	SEL	2,040	18.5	4324	5	39.3	24,600	224
Cobalt	10	NOAA SB	18	1.8	20	3	2.0	58	5.8
Copper	110	SEL	535	4.9	620	3	5.6	2,340	21.3
Cyanide	0.1	LEL	1.3	12.8	1.7	5	17.0	12	121
Iron	40,000	SEL	34,510	0.9	41453	5	1.0	258,000	6.5
Lead	250	SEL	879	3.5	2752	14	11.0	41,000	164
Manganese	1,100	SEL	573	0.5	652	3	0.6	2,020	1.8
Mercury	2	SEL	3.1	1.6	5.2	5	2.6	45	22.4
Nickel	75	SEL	26	0.3	29	3	0.4	150	2.0
Selenium	0.3	NOAA SB	4.7	15.7	5.3	3	17.8	30	101
Silver	4	ERM	0.7	0.2	1.0	13	0.3	5.3	1.4
Thallium	N/A	N/A	1.5	N/A	3.0	14	N/A	18	N/A
Vanadium	50	NOAA SB	53	1.1	58	3	1.2	163	3.3
Zinc	820	SEL	1,547	1.9	2144	14	2.6	4,940	6.0

Notes:

[a] SCVs adjusted for average organic carbon content in Reach 1 (TOC=24.2%);
SELs adjusted using the maximum allowable organic carbon content of 10%.

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al*. (1993)

ERM - Effects - Range Median; Long *et al*. (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-253
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 2 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	2,519	SCV	7.0	0.0	7.7	2	0.0	0.0	0.0
Acetone	81	SCV	416	5.1	4225	15	52.0	7,300	89.9
cis-1,2-Dichloroethene	3,733	SCV	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	3,826	SCV	7.0	0.0	7.7	2	0.0	0.0	0.0
Trichloroethene	2,053	SCV	7.0	0.0	7.7	2	0.0	0.0	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	1,213	SCV	215	0.2	220	*2	0.2	220	0.2
Acenaphthylene	640	ERM	193	0.3	120	*2	0.2	120	0.2
Anthracene	34,526	SEL	235	0.0	324	5	0.0	930	0.0
Benzo(a)anthracene	138,103	SEL	273	0.0	394	3	0.0	1,000	0.0
Benzo(a)pyrene	134,370	SEL	287	0.0	437	3	0.0	1,100	0.0
Benzo(b)fluoranthene [c]	125,039	SEL	505	0.0	1116	6	0.0	2,300	0.0
Benzo(g,h,i)perylene	29,860	SEL	248	0.0	391	13	0.0	700	0.0
Benzo(k)fluoranthene	29,860	SEL	479	0.0	1001	6	0.0	2,100	0.1
Carbazole	N/A	N/A	214	N/A	321	13	N/A	480	N/A
Chrysene	42,924	SEL	318	0.0	482	3	0.0	1,400	0.0
Dibenz(a,h)anthracene	12,131	SEL	186	0.0	160	*13	0.0	160	0.0
Dibenzofuran	3,919	SCV	220	0.1	327	13	0.1	500	0.1
Fluoranthene	95,179	SEL	410	0.0	885	6	0.0	1,800	0.0
Fluorene	14,930	SEL	215	0.0	294	3	0.0	810	0.1
Indeno(1,2,3-cd)pyrene	29,860	SEL	233	0.0	390	13	0.0	680	0.0
Naphthalene	2,240	SCV	197	0.1	250	*13	0.1	250	0.1
N-nitrosodiphenylamine	N/A	N/A	205	N/A	58	*2	N/A	58	N/A
Phenanthrene	88,647	SEL	328	0.0	498	3	0.0	1,900	0.0
Pyrene	79,316	SEL	459	0.0	962	6	0.0	2,200	0.0
Pesticides and PCBs (ug/kg)									
4,4'-DDD	560	SEL	12	0.0	21	3	0.0	83	0.1
4,4'-DDE	1,773	SEL	5.4	0.0	9.6	3	0.0	27	0.0
4,4'-DDT	1,120	SEL	3.2	0.0	5.3	3	0.0	19	0.0
Aldrin	747	SEL	0.8	0.0	1.5	5	0.0	2.0	0.0
alpha-Chlordane [d]	560	SEL	0.9	0.0	1.1	2	0.0	1.9	0.0
Aroclor 1248	13,997	SEL	21	0.0	29	13	0.0	0.0	N/A
Aroclor 1254	3,173	SEL	21	0.0	29	13	0.0	0.0	0.0
Aroclor 1260	2,240	SEL	21	0.0	29	13	0.0	0.0	N/A
beta-BHC	1,960	SEL	0.8	0.0	0.92	*13	0.0	0.9	0.0
delta-BHC [e]	1,120	SEL	0.9	0.0	0.85	*13	0.0	0.9	0.0
Endosulfan I	51	SCV	2.1	0.0	0.51	*13	0.0	0.5	0.0
Endosulfan Sulfate	51	SCV	2.1	0.0	2.9	13	0.1	0.0	0.0
Endrin Aldehyde [f]	12,131	SEL	1.9	0.0	0.90	*13	0.0	0.9	0.0
gamma-Chlordane [d]	560	SEL	0.7	0.0	0.93	3	0.0	2.4	0.0

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TABLE 4-253 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 2 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	7,715	0.3	8456	3	0.3	21,100	0.8
Antimony [g]	25	ERM	1.9	0.1	3.3	13	0.1	24	0.9
Arsenic	33	SEL	120	3.6	152	5	4.6	1,410	43
Barium	N/A	N/A	49.0	N/A	56	3	N/A	389.0	N/A
Beryllium	N/A	N/A	0.5	N/A	0.54	3	N/A	2.0	N/A
Cadmium	10	SEL	4.2	0.4	5.1	3	0.5	35	3.5
Chromium	110	SEL	329	3.0	463	5	4.2	5,310	48.3
Cobalt	10	NOAA SB	10	1.0	12	5	1.2	130	13.0
Copper	110	SEL	234	2.1	303	5	2.8	3,760	34.2
Cyanide	0.1	LEL	0.3	3.2	0.39	2	3.9	0.9	8.5
Iron	40,000	SEL	17,978	0.4	25859	13	0.6	86,500	2.2
Lead	250	SEL	170	0.7	201	3	0.8	664	2.7
Manganese	1,100	SEL	332	0.3	388	5	0.4	2,640	2.4
Mercury	2	SEL	1.9	1.0	2.0	5	1.0	89	44.6
Nickel	75	SEL	17	0.2	26	13	0.4	177	2.4
Selenium	0.3	NOAA SB	2.1	7.0	3.4	14	11.5	9.3	31.0
Silver	4	ERM	0.5	0.1	1.2	13	0.3	12	N/A
Thallium	N/A	N/A	1.2	N/A	1.9	13	N/A	10	N/A
Vanadium	50	NOAA SB	36	0.7	43	5	0.9	114	2.3
Zinc	820	SEL	745	0.9	926	5	1.1	8,750	10.7

Notes:

[a] SELs and SCVs adjusted for average organic carbon content in Reach 2 (TOC = 9.3%);

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-254
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 3 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	916	SCV	23	0.0	58	13	0.1	89	0.1
Acetone	30	SCV	46	1.6	80	3	2.7	0.0	0.0
cis-1,2-Dichloroethene	1,357	SCV	21	0.0	24	*1	0.0	24	0.0
Tetrachloroethene	1,391	SCV	19	0.0	31	5	0.0	0.0	0.0
Trichloroethene	746	SCV	15	0.0	19	3	0.0	35	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	441	SCV	371	0.8	130	*3	0.3	130	0.3
Acenaphthylene	640	ERM	367	0.6	480	*3	0.8	480	0.8
Anthracene	12,554	SEL	605	0.0	764	2	0.1	1,100	0.1
Benzo(a)anthracene	50,216	SEL	3,993	0.1	5354	2	0.1	9,600	0.2
Benzo(a)pyrene	48,859	SEL	3,891	0.1	5262	2	0.1	10,000	0.2
Benzo(b)fluoranthene [c]	45,466	SEL	6,812	0.1	9063	2	0.2	16,000	0.4
Benzo(g,h,i)perylene	10,858	SEL	1,778	0.2	2520	2	0.2	5,300	0.5
Benzo(k)fluoranthene	10,858	SEL	5,291	0.5	7382	2	0.7	14,000	1.3
Carbazole	N/A	N/A	338	N/A	465	2	N/A	680	N/A
Chrysene	15,608	SEL	4,996	0.3	6612	2	0.4	10,000	0.6
Dibenz(a,h)anthracene	4,411	SEL	573	0.1	957	3	0.2	2,000	0.5
Dibenzofuran	1,425	SCV	407	0.3	190	*3	0.1	190	0.1
Fluoranthene	34,609	SEL	9,142	0.3	12494	2	0.4	23,000	0.7
Fluorene	5,429	SEL	391	0.1	476	2	0.1	640	0.1
Indeno(1,2,3-cd)pyrene	10,858	SEL	2,028	0.2	3493	3	0.3	6,900	0.6
Naphthalene	814	SCV	367	0.5	130	*3	0.2	130	0.2
N-nitrosodiphenylamine	N/A	N/A	559	N/A	792	2	N/A	0.0	N/A
Phenanthrene	32,234	SEL	4,138	0.1	5790	2	0.2	12,000	0.4
Pyrene	28,841	SEL	7,080	0.2	9267	2	0.3	15,000	0.5
Pesticides and PCBs (ug/kg)									
4,4'-DDD	204	SEL	39	0.2	47	2	0.2	76	0.4
4,4'-DDE	645	SEL	32	0.1	41	2	0.1	69	0.1
4,4'-DDT	407	SEL	22	0.1	30	2	0.1	47	0.1
Aldrin	271	SEL	2.6	0.0	4.4	3	0.0	5.7	0.0
alpha-Chlordane [d]	204	SEL	35	0.2	46	2	0.2	80	0.4
Aroclor 1248	5,090	SEL	46	0.0	58	3	0.0	67	0.0
Aroclor 1254	1,154	SEL	35	0.0	117	15	0.1	0.0	0.0
Aroclor 1260	814	SEL	53	0.1	68	3	0.1	95	0.1
beta-BHC	713	SEL	3.2	0.0	4.2	2	0.0	6.6	0.0
delta-BHC [e]	407	SEL	4.5	0.0	8.3	3	0.0	24	0.1
Endosulfan I	19	SCV	3.7	0.2	2.8	3	0.1	0.0	0.0
Endosulfan Sulfate	19	SCV	3.7	0.2	3.9	*3	0.2	3.9	0.2
Endrin Aldehyde [f]	4,411	SEL	5.5	0.0	10	3	0.0	27	0.0
gamma-Chlordane [d]	204	SEL	26	0.1	34	2	0.2	53	0.3

TABLE 4-254 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 3 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc. [h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	9002	0.4	10837	3	0.4	22,600	0.9
Antimony [g]	25	ERM	1.6	0.1	2.4	13	0.1	5.1	0.2
Arsenic	33	SEL	69	2.1	93	3	2.8	485	14.7
Barium	N/A	N/A	50.9	N/A	63	3	N/A	118.0	N/A
Beryllium	N/A	N/A	0.5	N/A	0.62	3	N/A	1.3	N/A
Cadmium	10	SEL	3.2	0.3	4.6	3	0.5	13	1.3
Chromium	110	SEL	156	1.4	221	3	2.0	918	8.3
Cobalt	10	NOAA SB	11	1.1	13	3	1.3	33	3.3
Copper	110	SEL	203	1.8	291	3	2.6	1,560	14.2
Cyanide	0.1	LEL	1.0	10.4	1.7	3	16.6	3.8	38.0
Iron	40,000	SEL	16101	0.4	19944	5	0.5	35,400	0.9
Lead	250	SEL	195	0.8	276	3	1.1	661	2.6
Manganese	1,100	SEL	257	0.2	313	3	0.3	595	0.5
Mercury	2	SEL	1.1	0.5	1.5	3	0.8	5.7	2.9
Nickel	75	SEL	17	0.2	22	3	0.3	39	0.5
Selenium	0.3	NOAA SB	1.0	3.5	1.3	3	4.4	3.1	10.3
Silver	4	ERM	0.3	0.1	0.57	13	0.2	1.1	0.3
Thallium	N/A	N/A	1.5	N/A	1.8	2	N/A	3.8	N/A
Vanadium	50	NOAA SB	30	0.6	38	3	0.8	79	1.6
Zinc	820	SEL	918	1.1	1287	3	1.6	2,800	3.4

Notes:

[a] SELs and SCVs adjusted for average organic carbon content in Reach 3 (TOC = 3.4%);

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-255
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 4 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	2,700	SCV	51	0.0	62	*1	0.0	62	0.0
Acetone	87	SCV	105	1.2	133	2	1.5	0	0.0
cis-1,2-Dichloroethene	4,000	SCV	38	0.0	38	*1	0.0	38	0.0
Tetrachloroethene	4,100	SCV	21	0.0	76	3	0.0	0	0.0
Trichloroethene	2,200	SCV	22	0.0	52	*3	0.0	52	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	1,300	SCV	499	0.4	40	*3	0.0	40	0.0
Acenaphthylene	640	ERM	425	0.7	130	*3	0.2	130	0.2
Anthracene	37,000	SEL	477	0.0	947	2	0.0	1,300	0.0
Benzo(a)anthracene	148,000	SEL	1,788	0.0	3424	2	0.0	4,200	0.0
Benzo(a)pyrene	144,000	SEL	1,910	0.0	3744	2	0.0	5,100	0.0
Benzo(b)fluoranthene [c]	134,000	SEL	2,087	0.0	4354	2	0.0	6,100	0.0
Benzo(g,h,i)perylene	32,000	SEL	954	0.0	1707	2	0.1	1,900	0.1
Benzo(k)fluoranthene	32,000	SEL	983	0.0	1843	2	0.1	2,400	0.1
Carbazole	N/A	N/A	547	N/A	98	*2	N/A	98	N/A
Chrysene	46,000	SEL	2,690	0.1	5245	2	0.1	6,900	0.2
Dibenz(a,h)anthracene	13,000	SEL	635	0.0	720	*2	0.1	720	0.1
Dibenzofuran	4,200	SCV	614	0.1	1830	13	0.4	0	0.0
Fluoranthene	102,000	SEL	5,016	0.0	9774	2	0.1	11,000	0.1
Fluorene	16,000	SEL	316	0.0	430	*2	0.0	430	0.0
Indeno(1,2,3-cd)pyrene	32,000	SEL	968	0.0	1855	2	0.1	2,400	0.1
Naphthalene	2,400	SCV	502	0.2	53	*3	0.0	53	0.0
N-nitrosodiphenylamine	N/A	N/A	614	N/A	1830	13	N/A	0	N/A
Phenanthrene	95,000	SEL	2,666	0.0	5381	2	0.1	6,300	0.1
Pyrene	85,000	SEL	3,380	0.0	6412	2	0.1	7,500	0.1
Pesticides and PCBs (ug/kg)									
4,4'-DDD	600	SEL	71	0.1	94	*15	0.2	94	0.2
4,4'-DDE	1,900	SEL	71	0.0	100	*2	0.1	100	0.1
4,4'-DDT	1,200	SEL	18	0.0	32	*2	0.0	32	0.0
Aldrin	800	SEL	5.8	0.0	13	2	0.0	0	0.0
alpha-Chlordane [d]	600	SEL	34	0.1	61	2	0.1	80	0.1
Aroclor 1248	15,000	SEL	139	0.0	120	*2	0.0	120	0.0
Aroclor 1254	3,400	SEL	110	0.0	256	2	0.1	0	0.0
Aroclor 1260	2,400	SEL	130	0.1	82	*2	0.0	82	0.0
beta-BHC	2,100	SEL	5.8	0.0	13	2	0.0	0	0.0
delta-BHC [e]	1,200	SEL	12	0.0	24	2	0.0	25	0.0
Endosulfan I	55	SCV	11	0.2	13	2	0.2	0	0.0
Endosulfan Sulfate	55	SCV	11	0.2	25	2	0.5	0	0.0
Endrin Aldehyde [f]	13,000	SEL	11	0.0	25	2	0.0	0	0.0
gamma-Chlordane [d]	600	SEL	18	0.0	42	2	0.1	48	0.1

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TABLE 4-255 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 4 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	9,898	0.4	12435	2	0.5	15,700	0.6
Antimony [g]	25	ERM	2.0	0.1	2.5	2	0.1	2.8	0.1
Arsenic	33	SEL	69	2.1	98	2	3.0	135	4.1
Barium	N/A	N/A	75.8	N/A	101	2	N/A	130.0	N/A
Beryllium	N/A	N/A	0.6	N/A	0.75	2	N/A	1.0	N/A
Cadmium	10	SEL	5.0	0.5	6.8	2	0.7	10	1.0
Chromium	110	SEL	266	2.4	354	2	3.2	442	4.0
Cobalt	10	NOAA SB	14	1.4	17	2	1.7	21	2.1
Copper	110	SEL	224	2.0	308	2	2.8	435	4.0
Cyanide	0.1	LEL	1.7	17.0	2.8	2	27.7	3.3	33.0
Iron	40,000	SEL	22,091	0.6	29367	2	0.7	40,600	1.0
Lead	250	SEL	345	1.4	405	2	1.6	455	1.8
Manganese	1,100	SEL	584	0.5	957	3	0.9	1,630	1.5
Mercury	2	SEL	1.2	0.6	2.8	5	1.4	3.2	1.6
Nickel	75	SEL	22	0.3	28	2	0.4	36	0.5
Selenium	0.3	NOAA SB	1.1	3.8	2.0	3	6.7	3.4	11.3
Silver	4	ERM	0.3	0.1	0.18	*3	0.0	0.2	0.0
Thallium	N/A	N/A	0.6	N/A	0.82	2	N/A	1.2	N/A
Vanadium	50	NOAA SB	39	0.8	49	2	1.0	60	1.2
Zinc	820	SEL	1,035	1.3	1390	2	1.7	1,920	2.3

Notes:

[a] SELs and SCVs adjusted for average organic carbon content in Reach 4 (TOC =10.0%);

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-256
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 5 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	815	SCV	17	0.0	39	*1	0.0	39	0.0
Acetone	26	SCV	34	1.3	0.0	*1	0.0	0.0	0.0
cis-1,2-Dichloroethene	1,208	SCV	7.0	0.0	7.0	*1	0.0	7.0	0.0
Tetrachloroethene	1,238	SCV	9.0	0.0	14	2	0.0	0.0	0.0
Trichloroethene	664	SCV	7.0	0.0	6.0	*2	0.0	6.0	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	393	SCV	195	0.5	56	*2	0.1	55.5	0.1
Acenaphthylene	640	ERM	172	0.3	250	*2	0.4	250	0.4
Anthracene	11,172	SEL	291	0.0	520	*3	0.0	520	0.0
Benzo(a)anthracene	44,689	SEL	899	0.0	2100	2	0.0	2300	0.1
Benzo(a)pyrene	43,481	SEL	884	0.0	2193	2	0.1	2500	0.1
Benzo(b)fluoranthene [c]	40,461	SEL	1,015	0.0	2605	2	0.1	3000	0.1
Benzo(g,h,i)perylene	9,662	SEL	458	0.0	1047	2	0.1	1200	0.1
Benzo(k)fluoranthene	9,662	SEL	665	0.1	1648	2	0.2	1900	0.2
Carbazole	N/A	N/A	207	N/A	220	*1	N/A	220	N/A
Chrysene	13,890	SEL	1,054	0.1	2560	2	0.2	2900	0.2
Dibenz(a,h)anthracene	3,925	SEL	209	0.1	113	*2	0.0	112.5	0.0
Dibenzofuran	1,268	SCV	162	0.1	87	*1	0.1	87	0.1
Fluoranthene	30,799	SEL	1,813	0.1	4113	2	0.1	4400	0.1
Fluorene	4,831	SEL	214	0.0	230	*2	0.0	230	0.0
Indeno(1,2,3-cd)pyrene	9,662	SEL	430	0.0	1053	2	0.1	1200	0.1
Naphthalene	725	SCV	129	0.2	83	*2	0.1	83	0.1
N-nitrosodiphenylamine	N/A	N/A	242	N/A	0.0	*1	N/A	0.0	N/A
Phenanthrene	28,685	SEL	1,063	0.0	2200	*2	0.1	2200	0.1
Pyrene	25,666	SEL	1,690	0.1	3833	2	0.1	4100	0.2
Pesticides and PCBs (ug/kg)									
4,4'-DDD	181	SEL	95	0.5	180	*1	1.0	180	1.0
4,4'-DDE	574	SEL	23	0.0	36	*1	0.1	35.5	0.1
4,4'-DDT	362	SEL	10	0.0	9.3	*1	0.0	9.25	0.0
Aldrin	242	SEL	3.2	0.0	0.0	*1	0.0	0.0	N/A
alpha-Chlordane [d]	181	SEL	9.3	0.1	13	*1	0.1	13.05	0.1
Aroclor 1248	4,529	SEL	113	0.0	120	*1	0.0	120	0.0
Aroclor 1254	1,027	SEL	53	0.1	0.0	*1	0.0	0.0	0.0
Aroclor 1260	725	SEL	90	0.1	75	*1	0.1	74.5	0.1
beta-BHC	634	SEL	3.2	0.0	0.0	*1	0.0	0	N/A
delta-BHC [e]	362	SEL	4.6	0.0	3.7	*1	0.0	3.65	0.0
Endosulfan I	17	SCV	6.1	0.4	0.0	*1	0.0	0	N/A
Endosulfan Sulfate	17	SCV	6.1	0.4	0.0	*1	0.0	0	N/A
Endrin Aldehyde [f]	3,925	SEL	6.1	0.0	0.0	*1	0.0	0	N/A
gamma-Chlordane [d]	181	SEL	8.6	0.0	12	*1	0.1	11.65	0.1

TABLE 4-256 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 5 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	5,073	0.2	6470	*3	0.3	6470	0.3
Antimony [g]	25	ERM	1.2	0.0	1.8	*2	0.1	1.8	0.1
Arsenic	33	SEL	12	0.4	22	2	0.7	25	0.8
Barium	N/A	N/A	32	N/A	43	*2	N/A	43.2	N/A
Beryllium	N/A	N/A	0	N/A	0.30	*2	N/A	0.3	N/A
Cadmium	10	SEL	0.6	0.1	1.4	2	0.1	1.6	0.2
Chromium	110	SEL	62	0.6	136	2	1.2	149	1.4
Cobalt	10	NOAA SB	8.5	0.8	15	2	1.5	16	1.6
Copper	110	SEL	39	0.4	75	2	0.7	80	0.7
Cyanide	0.1	LEL	0.4	3.7	0.0	*1	0.0	0.0	0.0
Iron	40,000	SEL	11,163	0.3	14200	*2	0.4	14200	0.4
Lead	250	SEL	236	0.9	569	2	2.3	655	2.6
Manganese	1,100	SEL	349	0.3	952	*3	0.9	952	0.9
Mercury	2	SEL	0.4	0.2	1.0	2	0.5	1.2	0.6
Nickel	75	SEL	9.3	0.1	11	*2	0.1	11	0.1
Selenium	0.3	NOAA SB	0.5	1.6	1.6	3	5.4	0.0	N/A
Silver	4	ERM	0.3	0.1	0.43	2	0.1	0.5	0.1
Thallium	N/A	N/A	0.6	N/A	0.97	*2	N/A	1.0	N/A
Vanadium	50	NOAA SB	17	0.3	23	2	0.5	24	0.5
Zinc	820	SEL	234	0.3	571	*13	0.7	571	0.7

Notes:

[a] SELs and SCVs adjusted for average total combustible organic carbon content in Reach 5 (TCO = 3.0%);

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-257
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 6 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	1,131	SCV	20	0.0	99	*15	0.1	99	0.1
Acetone	36	SCV	79	2.2	565	*6	15.5	565	15.5
cis-1,2-Dichloroethene	1,675	SCV	36	0.0	62	*3	0.0	62	0.0
Tetrachloroethene	1,717	SCV	28	0.0	464	6	0.3	0	0.0
Trichloroethene	921	SCV	13	0.0	37	*15	0.0	37	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	544	SCV	193	0.4	70	*3	0.1	70	0.1
Acenaphthylene	640	ERM	201	0.3	350	*15	0.5	350	0.5
Anthracene	15,493	SEL	224	0.0	376	3	0.0	960	0.1
Benzo(a)anthracene	61,972	SEL	796	0.0	652	5	0.0	3,900	0.1
Benzo(a)pyrene	60,298	SEL	846	0.0	773	3	0.0	4,200	0.1
Benzo(b)fluoranthene [c]	56,110	SEL	1,074	0.0	1338	5	0.0	6,000	0.1
Benzo(g,h,i)perylene	13,399	SEL	535	0.0	578	5	0.0	2,300	0.2
Benzo(k)fluoranthene	13,399	SEL	685	0.1	796	3	0.1	3,800	0.3
Carbazole	N/A	N/A	229	N/A	400	*5	N/A	400	N/A
Chrysene	19,262	SEL	973	0.1	874	5	0.0	5,900	0.3
Dibenz(a,h)anthracene	5,444	SEL	287	0.1	411	3	0.1	1,100	0.2
Dibenzofuran	1,759	SCV	235	0.1	170	*5	0.1	170	0.1
Fluoranthene	42,711	SEL	1685	0.0	1498	3	0.0	8,500	0.2
Fluorene	6,700	SEL	220	0.0	384	3	0.1	490	0.1
Indeno(1,2,3-cd)pyrene	13,399	SEL	574	0.0	638	5	0.0	2,600	0.2
Naphthalene	1,005	SCV	185	0.2	160	*3	0.2	160	0.2
N-nitrosodiphenylamine	N/A	N/A	248	N/A	571	3	N/A	0	N/A
Phenanthrene	39,780	SEL	802	0.0	743	3	0.0	4,600	0.1
Pyrene	35,592	SEL	1494	0.0	1332	5	0.0	7,000	0.2
Pesticides and PCBs (ug/kg)									
4,4'-DDD	251	SEL	22	0.1	109	15	0.4	160	0.6
4,4'-DDE	796	SEL	15	0.0	34	5	0.0	91	0.1
4,4'-DDT	502	SEL	5.1	0.0	3.7	3	0.0	21	0.0
Aldrin	335	SEL	1.9	0.0	0.30	*3	0.0	0	0.0
alpha-Chlordane [d]	251	SEL	5.9	0.0	29	*15	0.1	29	0.1
Aroclor 1248	6,281	SEL	68	0.0	125	5	0.0	200	0.0
Aroclor 1254	1,424	SEL	36	0.0	1075	15	0.8	0	0.0
Aroclor 1260	1,005	SEL	65	0.1	170	*15	0.2	170	0.2
beta-BHC	879	SEL	1.9	0.0	3.9	15	0.0	0	0.0
delta-BHC [e]	502	SEL	2.1	0.0	2.3	*15	0.0	2	0.0
Endosulfan I	23	SCV	3.8	0.2	31	15	1.3	0	0.0
Endosulfan Sulfate	23	SCV	3.8	0.2	0.78	*3	0.0	1	0.0
Endrin Aldehyde [f]	5,444	SEL	4.8	0.0	6.3	13	0.0	11	0.0
gamma-Chlordane [d]	251	SEL	4.8	0.0	22	*6	0.1	22	0.1

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TABLE 4-257 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN REACH 6 TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	12,409	0.5	13543	3	0.5	25,000	1.0
Antimony [g]	25	ERM	1.7	0.1	11	*14	0.4	11	0.4
Arsenic	33	SEL	117	3.5	757	5	22.9	1,570	47.6
Barium	N/A	N/A	106.6	N/A	123	5	N/A	368.0	N/A
Beryllium	N/A	N/A	0.7	N/A	1.1	13	N/A	1.7	N/A
Cadmium	10	SEL	7.5	0.8	12	14	1.2	38	3.8
Chromium	110	SEL	272	2.5	3000	*5	27.3	3,000	27.3
Cobalt	10	NOAA SB	21	2.1	20	3	2.0	72	7.2
Copper	110	SEL	314	2.9	620	3	5.6	1,250	11.4
Cyanide	0.1	LEL	0.9	8.8	1.7	5	17.0	4.4	44.0
Iron	40,000	SEL	31,013	0.8	41453	5	1.0	106,000	2.7
Lead	250	SEL	429	1.7	1290	*14	5.2	1,290	5.2
Manganese	1,100	SEL	605	0.6	652	3	0.6	3,060	2.8
Mercury	2	SEL	1.0	0.5	5.2	5	2.6	14	6.8
Nickel	75	SEL	27	0.4	29	3	0.4	64	0.9
Selenium	0.3	NOAA SB	1.6	5.4	5.1	*3	17.0	5.1	17.0
Silver	4	ERM	0.5	0.1	1.0	13	0.3	1.4	0.4
Thallium	N/A	N/A	0.6	N/A	2.9	*14	N/A	2.9	N/A
Vanadium	50	NOAA SB	52	1.0	58	3	1.2	180	3.6
Zinc	820	SEL	1,901	2.3	2144	14	2.6	7,670	9.4

Notes:

[a] SELs and SCVs adjusted for average organic carbon content in Reach 6 (TOC = 4.2%);

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reach (see Table 4-32 for samples used for each reach).

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples within the reach (See Table 4-32 for samples used for each reach).

Max. Detected Conc. - maximum detected concentration among all samples at all stations within the reach

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TABLE 4-258
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN POND REFERENCE TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	3,127	SCV	100	0.0	680	*15	0.2	680	0.2
Acetone	101	SCV	348	3.5	1446	4	14.3	2,200	21.8
cis-1,2-Dichloroethene	4,632	SCV	7.3	0.0	0.0	*1	0.0	0.0	0.0
Tetrachloroethene	4,748	SCV	9.2	0.0	12	2	0.0	0.0	0.0
Trichloroethene	2,548	SCV	7.9	0.0	9.5	2	0.0	0.0	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	1,505	SCV	366	0.2	93	*3	0.1	93	0.1
Acenaphthylene	640	ERM	395	0.6	390	*3	0.6	390	0.6
Anthracene	37,000	SEL	432	0.0	440	*13	0.0	440	0.0
Benzo(a)anthracene	148,000	SEL	1,128	0.0	2296	3	0.0	4,900	0.0
Benzo(a)pyrene	144,000	SEL	1,230	0.0	2643	3	0.0	5,100	0.0
Benzo(b)fluoranthene [c]	134,000	SEL	1,480	0.0	3541	3	0.0	5,800	0.0
Benzo(g,h,i)perylene	32,000	SEL	643	0.0	1628	13	0.1	2,200	0.1
Benzo(k)fluoranthene	32,000	SEL	1,350	0.0	3100	6	0.1	6,700	0.2
Carbazole	N/A	N/A	433	N/A	370	*3	N/A	370	N/A
Chrysene	46,000	SEL	1,398	0.0	3096	3	0.1	5,400	0.1
Dibenz(a,h)anthracene	13,000	SEL	376	0.0	567	3	0.0	1,100	0.1
Dibenzofuran	4,864	SCV	407	0.1	120	*5	0.0	120	N/A
Fluoranthene	102,000	SEL	2,417	0.0	6104	3	0.1	11,000	0.1
Fluorene	16,000	SEL	387	0.0	210	*5	0.0	210	0.0
Indeno(1,2,3-cd)pyrene	32,000	SEL	893	0.0	3700	*15	0.1	3,700	0.1
Naphthalene	2,779	SCV	373	0.1	160	*3	0.1	160	0.1
N-nitrosodiphenylamine	N/A	N/A	412	N/A	1049	13	N/A	0.0	N/A
Phenanthrene	95,000	SEL	1,103	0.0	2188	3	0.0	3,300	0.0
Pyrene	85,000	SEL	1,970	0.0	5337	6	0.1	8,100	0.1
Pesticides and PCBs (ug/kg)									
4,4'-DDD	600	SEL	27	0.0	52	3	0.1	97	0.2
4,4'-DDE	1,900	SEL	18	0.0	32	3	0.0	51	0.0
4,4'-DDT	1,200	SEL	12	0.0	18	2	0.0	30	0.0
Aldrin	800	SEL	4.4	0.0	15	15	0.0	0.0	0.0
alpha-Chlordane [d]	600	SEL	11	0.0	29	6	0.0	69	0.1
Aroclor 1248	15,000	SEL	88	0.0	56	*2	0.0	56	0.0
Aroclor 1254	3,400	SEL	83	0.0	298	15	0.1	0.0	0.0
Aroclor 1260	2,400	SEL	87	0.0	47	*15	0.0	47	0.0
beta-BHC	2,100	SEL	4.4	0.0	15	15	0.0	0.0	0.0
delta-BHC [e]	1,200	SEL	4.4	0.0	15	15	0.0	0.0	0.0
Endosulfan I	64	SCV	10	0.2	36	4	0.6	66	1.0
Endosulfan Sulfate	64	SCV	7.9	0.1	11	*15	0.2	11	0.2
Endrin Aldehyde [f]	13,000	SEL	11	0.0	4.4	*2	0.0	4.4	0.0
gamma-Chlordane [d]	600	SEL	4.0	0.0	1.3	*3	0.0	1.3	0.0

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TABLE 4-258 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATION IN POND REFERENCE TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	11,480	0.5	13873	2	0.5	20,200	0.8
Antimony [g]	25	ERM	0.9	0.0	1.2	2	0.0	2	0.1
Arsenic	33	SEL	13	0.4	23	3	0.7	34	1.0
Barium	N/A	N/A	62.3	N/A	85	2	N/A	155	N/A
Beryllium	N/A	N/A	0.6	N/A	0.88	3	N/A	1	N/A
Cadmium	10	SEL	1.2	0.1	4.1	*4	0.4	4	0.4
Chromium	110	SEL	46	0.4	79	3	0.7	155	1.4
Cobalt	10	NOAA SB	9.4	0.9	12	2	1.2	19	1.9
Copper	110	SEL	53	0.5	75	2	0.7	125	1.1
Cyanide	0.1	LEL	0.4	4.3	0.50	2	5.0	0.0	0.0
Iron	40,000	SEL	17,321	0.4	20816	2	0.5	27,700	0.7
Lead	250	SEL	213	0.9	396	3	1.6	755	3.0
Manganese	1,100	SEL	288	0.3	450	3	0.4	837	0.8
Mercury	2	SEL	0.2	0.1	0.27	2	0.1	1	0.3
Nickel	75	SEL	17	0.2	21	2	0.3	32	0.4
Selenium	0.3	NOAA SB	0.8	2.7	1.6	5	5.2	3	10.7
Silver	4	ERM	0.3	0.1	0.50	3	0.1	1	0.2
Thallium	N/A	N/A	0.6	N/A	1.1	3	N/A	2	N/A
Vanadium	50	NOAA SB	35	0.7	42	2	0.8	56	1.1
Zinc	820	SEL	223	0.3	347	2	0.4	645	0.8

Notes:

[a] SCVs adjusted for average organic carbon content in Lake Reference (TOC = 11.6%)
SELs adjusted using the maximum allowable organic carbon content of 10%.

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al*. (1993)

ERM - Effects - Range Median; Long *et al*. (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reference area. Samples were included from Stations 02-IP, 03-IP, 25, and 26.

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples for stations 02-IP, 03-IP, 25 and 26

Max. Detected Conc. - maximum detected concentration among all samples for 02-IP, 03-IP, 25 and 26

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TABLE 4-259
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN
WETLAND REFERENCE TO BENCHMARKS FOR BENTHIC INVERTEBRATES

USEPA WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	5,670	SCV	8.6	0.0	13	3	0.0	0.0	0.0
Acetone	183	SCV	34	0.2	71	2	0.4	0.0	0.0
cis-1,2-Dichloroethene	8,400	SCV	12	0.0	0.0	*1	0.0	0.0	0.0
Tetrachloroethene	8,610	SCV	13	0.0	33	13	0.0	0.0	0.0
Trichloroethene	4,620	SCV	9.1	0.0	12	2	0.0	0.0	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	2,730	SCV	195	0.1	289	2	0.1	360	0.1
Acenaphthylene	640	ERM	243	0.4	690	3	1.1	800	1.3
Anthracene	37,000	SEL	440	0.0	1656	3	0.0	1,900	0.1
Benzo(a)anthracene	148,000	SEL	1,360	0.0	5406	3	0.0	5,900	0.0
Benzo(a)pyrene	144,000	SEL	1,233	0.0	4904	3	0.0	5,500	0.0
Benzo(b)fluoranthene [c]	134,000	SEL	2,188	0.0	9363	3	0.1	10,000	0.1
Benzo(g,h,i)perylene	32,000	SEL	376	0.0	627	2	0.0	920	0.0
Benzo(k)fluoranthene	32,000	SEL	2,023	0.1	9464	3	0.3	9,600	0.3
Carbazole	N/A		323	N/A	990	*3	N/A	990	N/A
Chrysene	46,000	SEL	1,610	0.0	6684	3	0.1	7,300	0.2
Dibenz(a,h)anthracene	13,000	SEL	234	0.0	350	2	0.0	500	0.0
Dibenzofuran	8,820	SCV	357	0.0	1000	*5	0.1	1,000	N/A
Fluoranthene	102,000	SEL	3,293	0.0	15000	*3	0.1	15,000	0.1
Fluorene	16,000	SEL	568	0.0	1369	6	0.1	2,800	0.2
Indeno(1,2,3-cd)pyrene	32,000	SEL	518	0.0	1405	3	0.0	1,700	0.1
Naphthalene	5,040	SCV	221	0.0	359	2	0.1	520	0.1
N-nitrosodiphenylamine	N/A		367	N/A	2035	5	N/A	0.0	N/A
Phenanthrene	95,000	SEL	2,408	0.0	12000	*4	0.1	12,000	0.1
Pyrene	85,000	SEL	2,577	0.0	10736	3	0.1	11,000	0.1
Pesticides and PCBs (ug/kg)									
4,4'-DDD	600	SEL	95	0.2	390	*3	0.7	390	0.7
4,4'-DDE	1,900	SEL	13	0.0	23	2	0.0	37	0.0
4,4'-DDT	1,200	SEL	34	0.0	130	*3	0.1	130	0.1
Aldrin	800	SEL	0.8	0.0	1.1	2	0.0	1.6	0.0
alpha-Chlordane [d]	600	SEL	1.8	0.0	4.2	3	0.0	5.3	0.0
Aroclor 1248	15,000	SEL	64	0.0	290	*15	0.0	290	0.0
Aroclor 1254	3,400	SEL	16	0.0	23	2	0.0	0.0	0.0
Aroclor 1260	2,400	SEL	49	0.0	200	*15	0.1	200	0.1
beta-BHC	2,100	SEL	0.8	0.0	0.40	*2	0.0	0.4	0.0
delta-BHC [e]	1,200	SEL	0.9	0.0	1.1	2	0.0	0.0	0.0
Endosulfan I	116	SCV	0.8	0.0	0.22	*2	0.0	0.2	0.0
Endosulfan Sulfate	116	SCV	2.5	0.0	4.9	3	0.0	6.6	0.1
Endrin Aldehyde [f]	13,000	SEL	2.4	0.0	4.6	3	0.0	5.9	0.0
gamma-Chlordane [d]	600	SEL	2.1	0.0	3.6	2	0.0	4.6	0.0

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TABLE 4-259 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATIONS AT STATION 24 (WETLAND REFERENCE) TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Detected Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	8,195	0.3	12242	2	0.5	14,300	0.6
Antimony [g]	25	ERM	0.8	0.0	1.0	2	0.0	1.2	0.0
Arsenic	33	SEL	21	0.6	33	2	1.0	41	1.2
Barium	N/A	N/A	47.9	N/A	72	2	N/A	87.5	N/A
Beryllium	N/A	N/A	0.7	N/A	1.0	2	N/A	1.2	N/A
Cadmium	10	SEL	1.3	0.1	2.2	2	0.2	2.9	0.3
Chromium	110	SEL	129	1.2	410	*3	3.7	410	3.7
Cobalt	10	NOAA SB	8.4	0.8	13	2	1.3	13	1.3
Copper	110	SEL	57	0.5	93	2	0.8	130	1.2
Cyanide	0.1	LEL	0.4	4.3	0.0	*1	0.0	0.0	0.0
Iron	40,000	SEL	15,518	0.4	22525	2	0.6	24,200	0.6
Lead	250	SEL	332	1.3	524	2	2.1	581	2.3
Manganese	1,100	SEL	133	0.1	210	2	0.2	263	0.2
Mercury	2	SEL	0.3	0.1	0.71	*3	0.4	0.7	0.4
Nickel	75	SEL	19	0.3	27	*13	0.4	27	0.4
Selenium	0.3	NOAA SB	0.8	2.5	1.7	3	5.6	2.1	7.0
Silver	4	ERM	1.1	0.3	2.9	*3	0.8	2.9	0.8
Thallium	N/A	N/A	0.5	N/A	0.73	2	N/A	0.0	N/A
Vanadium	50	NOAA SB	56	1.1	99	2	2.0	148	3.0
Zinc	820	SEL	155	0.2	232	2	0.3	251	0.3

Notes:

[a] SCVs adjusted for average organic carbon content (TOC = 21.0%)
SELs adjusted using the maximum allowable organic carbon content of 10%.

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al* . (1993)

ERM - Effects - Range Median; Long *et al* . (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reference area. Samples were included from Stations 24, HB, and SA.

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples for stations 24, HB, and SA.

Max. Detected Conc. - maximum detected concentration among all samples for stations 24, HB, and SA.

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TABLE 4-260
COMPARISON OF SEDIMENT COPC CONCENTRATIONS IN RIVER REFERENCE TO BENCHMARKS FOR BENTHIC INVERTEBRATES

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Volatile Organics (ug/kg)									
2-Butanone	3,379	SCV	33	0.0	230	*15	0.1	230	0.1
Acetone	109	SCV	114	1.0	280	3	2.6	670	6.2
cis-1,2-Dichloroethene	5,005	SCV	9.0	0.0	15	2	0.0	0.0	0.0
Tetrachloroethene	5,130	SCV	8.0	0.0	10	2	0.0	0.0	0.0
Trichloroethene	2,753	SCV	8.0	0.0	10	2	0.0	0.0	0.0
Semivolatile Organics (ug/kg)									
2-Methylnaphthalene [b]	1,627	SCV	186	0.1	81	*2	0.0	81	0.0
Acenaphthylene	640	ERM	250	0.4	302	2	0.5	450	0.7
Anthracene	37,000	SEL	359	0.0	519	3	0.0	990	0.0
Benzo(a)anthracene	148,000	SEL	1,049	0.0	1494	2	0.0	2,400	0.0
Benzo(a)pyrene	144,000	SEL	935	0.0	1353	2	0.0	2,100	0.0
Benzo(b)fluoranthene [c]	134,000	SEL	1,196	0.0	1768	2	0.0	3,000	0.0
Benzo(g,h,i)perylene	32,000	SEL	460	0.0	1055	13	0.0	1,400	0.0
Benzo(k)fluoranthene	32,000	SEL	1,129	0.0	1598	2	0.0	2,200	0.1
Carbazole	N/A	N/A	234	N/A	302	3	N/A	520	N/A
Chrysene	46,000	SEL	1,248	0.0	1767	2	0.0	2,600	0.1
Dibenz(a,h)anthracene	13,000	SEL	235	0.0	276	2	0.0	350	0.0
Dibenzofuran	5,256	SCV	196	0.0	210	*2	0.0	210	N/A
Fluoranthene	102,000	SEL	2,230	0.0	3273	2	0.0	5,500	0.1
Fluorene	16,000	SEL	256	0.0	338	2	0.0	620	0.0
Indeno(1,2,3-cd)pyrene	32,000	SEL	578	0.0	1003	3	0.0	1,800	0.1
Naphthalene	3,003	SCV	202	0.1	160	*2	0.1	160	0.1
N-nitrosodiphenylamine	N/A	N/A	211	N/A	235	2	N/A	0.0	N/A
Phenanthrene	95,000	SEL	1,442	0.0	2716	3	0.0	4,500	0.0
Pyrene	85,000	SEL	1,859	0.0	2702	2	0.0	3,600	0.0
Pesticides and PCBs (ug/kg)									
4,4'-DDD	600	SEL	41	0.1	103	3	0.2	200	0.3
4,4'-DDE	1,900	SEL	53	0.0	205	8	0.1	470	0.2
4,4'-DDT	1,200	SEL	25	0.0	96	4	0.1	180	0.2
Aldrin	800	SEL	2.3	0.0	4.5	3	0.0	0.0	0.0
alpha-Chlordane [d]	600	SEL	4.6	0.0	11	3	0.0	23	0.0
Aroclor 1248	15,000	SEL	43	0.0	107	3	0.0	0.0	0.0
Aroclor 1254	3,400	SEL	43	0.0	107	3	0.0	0.0	0.0
Aroclor 1260	2,400	SEL	43	0.0	107	3	0.0	0.0	0.0
beta-BHC	2,100	SEL	2.2	0.0	0.75	*15	0.0	0.8	0.0
delta-BHC [e]	1,200	SEL	2.3	0.0	4.5	3	0.0	0.0	0.0
Endosulfan I	69	SCV	5.6	0.1	27	8	0.4	35	0.5
Endosulfan Sulfate	69	SCV	4.2	0.1	9.1	*3	0.1	9.1	0.1
Endrin Aldehyde [f]	13,000	SEL	6.0	0.0	13	3	0.0	0.0	0.0
gamma-Chlordane [d]	600	SEL	2.2	0.0	0.31	*3	0.0	0.3	0.0

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TABLE 4-260 (continued). COMPARISON OF SEDIMENT COPC CONCENTRATION IN RIVER REFERENCE TO BENCHMARKS FOR BENTHIC INVERTEBRATES

Chemical of Potential Concern	Sediment Benchmark [a]	Source	Average Conc.	Average Case HQ	95% UCL / Max Conc.[h]	95% UCL Ref [i]	95% UCL HQ	Max. Detected Conc.	Max. Detection HQ
Inorganics (mg/kg)									
Aluminum	25,500	TEL	6,157	0.2	7825	2	0.3	11,600	0.5
Antimony [g]	25	ERM	1.2	0.0	2.2	3	0.1	5.6	0.2
Arsenic	33	SEL	18	0.5	25	2	0.8	45	1.3
Barium	N/A	N/A	57.1	N/A	85	2	N/A	173.0	N/A
Beryllium	N/A	N/A	0.5	N/A	0.64	2	N/A	1.0	N/A
Cadmium	10	SEL	1.5	0.2	3.9	3	0.4	6.1	0.6
Chromium	110	SEL	106	1.0	512	*15	4.7	512	4.7
Cobalt	10	NOAA SB	7.9	0.8	14	3	1.4	22	2.2
Copper	110	SEL	74	0.7	344	*8	3.1	344	3.1
Cyanide	0.1	LEL	0.3	3.3	0.39	2	3.9	0.0	0.0
Iron	40,000	SEL	15,909	0.4	27455	3	0.7	51,600	1.3
Lead	250	SEL	101	0.4	225	3	0.9	369	1.5
Manganese	1,100	SEL	570	0.5	1203	3	1.1	1,980	1.8
Mercury	2	SEL	0.2	0.1	0.42	3	0.2	0.6	0.3
Nickel	75	SEL	12	0.2	16	2	0.2	26	0.3
Selenium	0.3	NOAA SB	0.8	2.8	1.4	3	4.6	3.0	10.0
Silver	4	ERM	0.3	0.1	0.45	3	0.1	0.8	0.2
Thallium	N/A	N/A	0.4	N/A	0.45	2	N/A	0.0	N/A
Vanadium	50	NOAA SB	23	0.5	32	2	0.6	54	1.1
Zinc	820	SEL	191	0.2	413	3	0.5	611	0.7

Notes:

[a] SCVs adjusted for average organic carbon content in River Reference (TOC = 12.5%); SELs adjusted using the maximum allowable organic carbon content of 10%.

[b] Benchmark value for 1-methylnaphthalene reported

[c] Benchmark value for benzo(k)fluoranthene reported

[d] Benchmark value for chlordane reported

[e] Benchmark value for BHC reported

[f] Benchmark value for endrin reported

[g] ERM from Long and Morgan (1990)

[h] The lesser value of the maximum detected concentration and the 95% UCL concentration, as used in the 95% UCL HQ calculation, is provided.

[i] 95% UCL References: * Maximum detected value is shown

1. Sample size too small/not enough distinct values
2. 95% Student's-t UCL
3. 95% Approximate Gamma UCL
4. 95% Adjusted Gamma UCL
5. 95% H-UCL
6. 95% Chebyshev (MVUE) UCL
7. 97.5% Chebyshev (MVUE) UCL
8. 99% Chebyshev (MVUE) UCL
9. 95% CLT UCL
10. 95% Adjusted-CLT UCL
11. 95% Modified-t UCL
12. 95% Jackknife UCL
13. 95% Chebyshev (Mean, Sd) UCL
14. 97.5% Chebyshev (Mean, Sd) UCL
15. 99% Chebyshev (Mean, Sd) UCL
16. 95% Standard Bootstrap UCL
17. 95% Bootstrap-t UCL
18. 95% Hall's Bootstrap UCL
19. 95% Percentile Bootstrap UCL
20. 95% BCA Bootstrap UCL

In the case that the 95% UCL reference displays a "1" indicating that the sample size was too small to calculate a 95% UCL (<4) or did not contain enough distinct observations, the maximum detected concentration, if available, is provided. Zero concentration values represent compounds that were not detected.

N/A - Not Available

Max. - Maximum

Conc. - Concentration

HQ - Hazard Quotient

SEL - Severe Effect Level; Persaud *et al*. (1993)

ERM - Effects - Range Median; Long *et al*. (1995)

TEL - Threshold Effect Level (Buchman, 1999)

NOAA SB - NOAA Sediment Background (Buchman, 1999)

SCV - Secondary Chronic Value; Jones *et al.* (1997)

LEL - Ontario Ministry of Environment and Energy Lowest Effect Level (OME, 1996). No SEL available. Value for cyanide is free cyanide.

0.0 - indicates the HQ was <0.05

Average Conc. - Individual samples were averaged to compute a mean concentration for the reference area. Samples were included from Stations 01-IP, 04-IP, 12-IP, 23, and 27.

95% UCL Conc. - Upper Conficence Limit value for all of the sediment samples for stations 01-IP, 04-IP, 12-IP, 23, 27.

Max. Detected Conc. - maximum detected concentration among all samples for stations 01-IP, 04-IP, 12-IP, 23, 27.

TABLE 4-261
HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH
AVERAGE CASE HQ
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Reference	River Reference	Wetland Reference
Volatile Organics									
2-Butanone	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acetone	2.9	5.1	1.6	1.2	1.3	2.2	3.5	1.0	0.2
cis-1,2-Dichloroethene	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetrachloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichloroethene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAZARD INDEX	3.0	5.1	1.6	1.3	1.3	2.2	3.5	1.1	0.2
Semivolatile Organics									
2-Methylnaphthalene	0.1	0.2	0.8	0.4	0.5	0.4	0.2	0.1	0.1
Acenaphthylene	0.4	0.3	0.6	0.7	0.3	0.3	0.6	0.4	0.4
Anthracene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(a)anthracene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(a)pyrene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(b)fluoranthene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(g,h,i)perylene	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(k)fluoranthene	0.0	0.0	0.5	0.0	0.1	0.1	0.0	0.0	0.1
Carbazole	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	0.0	0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0
Dibenz(a,h)anthracene	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Dibenzofuran	0.0	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0
Fluoranthene	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0
Fluorene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Indeno(1,2,3-cd)pyrene	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Naphthalene	0.1	0.1	0.5	0.2	0.2	0.2	0.1	0.1	0.0
N-nitrosodiphenylamine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Pyrene	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
HAZARD INDEX	0.74	0.7	4.5	1.8	1.7	1.4	1.3	0.8	0.8
Pesticides and PCBs									
4,4'-DDD	0.0	0.0	0.2	0.1	0.5	0.1	0.0	0.1	0.2
4,4'-DDE	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDT	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Aldrin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
alpha-Chlordane	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0
Aroclor 1248	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1254	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Aroclor 1260	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
beta-BHC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
delta-BHC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Endosulfan I	0.1	0.0	0.2	0.2	0.4	0.2	0.2	0.1	0.0
Endosulfan Sulfate	0.0	0.0	0.2	0.2	0.4	0.2	0.1	0.1	0.0
Endrin Aldehyde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
gamma-Chlordane	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
HAZARD INDEX	0.4	0.1	1.1	0.8	1.7	0.6	0.5	0.3	0.3

US EPA ARCHIVE DOCUMENT

TABLE 4-261

HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH

AVERAGE CASE HQ

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Refernce	River Reference	Wetland Reference
Inorganics									
Aluminum	0.5	0.3	0.4	0.4	0.2	0.5	0.5	0.2	0.3
Antimony	0.6	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Arsenic	13.3	3.6	2.1	2.1	0.4	3.5	0.4	0.5	0.6
Barium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium	0.8	0.4	0.3	0.5	0.1	0.8	0.1	0.2	0.1
Chromium	18.5	3.0	1.4	2.4	0.6	2.5	0.4	1.0	1.2
Cobalt	1.8	1.0	1.1	1.4	0.8	2.1	0.9	0.8	0.8
Copper	4.9	2.1	1.8	2.0	0.4	2.9	0.5	0.7	0.5
Cyanide	12.8	3.2	10.4	17.0	3.7	8.8	4.3	3.3	4.3
Iron	0.9	0.4	0.4	0.6	0.3	0.8	0.4	0.4	0.4
Lead	3.5	0.7	0.8	1.4	0.9	1.7	0.9	0.4	1.3
Manganese	0.5	0.3	0.2	0.5	0.3	0.6	0.3	0.5	0.1
Mercury	1.6	1.0	0.5	0.6	0.2	0.5	0.1	0.1	0.1
Nickel	0.3	0.2	0.2	0.3	0.1	0.4	0.2	0.2	0.3
Selenium	15.7	7.0	3.5	3.8	1.6	5.4	2.7	2.8	2.5
Silver	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Thallium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium	1.1	0.7	0.6	0.8	0.3	1.0	0.7	0.5	1.1
Zinc	1.9	0.9	1.1	1.3	0.3	2.3	0.3	0.2	0.2
HAZARD INDEX	78.8	25.2	25.1	35.2	10.2	33.8	12.7	11.9	14.3

N/A - not available

0.0 - indicates the HQ was <0.05

Shaded - HQ or HI >1.0

Shaded and Boxed - HQ or HI >10

US EPA ARCHIVE DOCUMENT

TABLE 4-262

HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH

95% UCL CASE HQ

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Reference	River Reference	Wetland Reference
Volatile Organics									
2-Butanone	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0
Acetone	8.5	52.0	2.7	1.5	0.0	15.5	14.3	2.6	0.4
cis-1,2-Dichloroethene	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetrachloroethene	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Trichloroethene	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAZARD INDEX	8.7	52.0	2.8	1.6	0.1	15.9	14.6	2.7	0.4
Semivolatile Organics									
2-Methylnaphthalene	0.0	0.2	0.3	0.0	0.1	0.1	0.1	0.0	0.1
Acenaphthylene	0.1	0.2	0.8	0.2	0.4	0.5	0.6	0.5	1.1
Anthracene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(a)anthracene	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzo(a)pyrene	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Benzo(b)fluoranthene	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1
Benzo(g,h,i)perylene	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0
Benzo(k)fluoranthene	0.0	0.0	0.7	0.1	0.2	0.1	0.1	0.0	0.3
Carbazole	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	0.0	0.0	0.4	0.1	0.2	0.0	0.1	0.0	0.1
Dibenz(a,h)anthracene	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0
Dibenzofuran	0.1	0.1	0.1	0.4	0.1	0.1	0.0	0.0	0.1
Fluoranthene	0.0	0.0	0.4	0.1	0.1	0.0	0.1	0.0	0.1
Fluorene	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Indeno(1,2,3-cd)pyrene	0.0	0.0	0.3	0.1	0.1	0.0	0.1	0.0	0.0
Naphthalene	0.1	0.1	0.2	0.0	0.1	0.2	0.1	0.1	0.1
N-nitrosodiphenylamine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.1
Pyrene	0.0	0.0	0.3	0.1	0.1	0.0	0.1	0.0	0.1
HAZARD INDEX	0.5	0.7	4.6	1.4	1.9	1.4	1.4	0.9	2.6
Pesticides and PCBs									
4,4'-DDD	0.2	0.0	0.2	0.2	1.0	0.4	0.1	0.2	0.7
4,4'-DDE	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
4,4'-DDT	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Aldrin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
alpha-Chlordane	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0
Aroclor 1248	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1254	0.3	0.0	0.1	0.1	0.0	0.8	0.1	0.0	0.0
Aroclor 1260	0.5	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.1
beta-BHC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
delta-BHC[e]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Endosulfan I	0.2	0.0	0.1	0.2	0.0	1.3	0.6	0.4	0.0
Endosulfan Sulfate	0.0	0.1	0.2	0.5	0.0	0.0	0.2	0.1	0.0
Endrin Aldehyde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
gamma-Chlordane	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0
HAZARD INDEX	1.4	0.1	1.4	1.3	1.4	3.0	1.1	1.0	0.9

US EPA ARCHIVE DOCUMENT

TABLE 4-262

HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH

95% UCL CASE HQ

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Reference	River Reference	Wetland Reference
Inorganics									
Aluminum	0.5	0.3	0.4	0.5	0.3	0.5	0.5	0.3	0.5
Antimony	1.4	0.1	0.1	0.1	0.1	0.4	0.0	0.1	0.0
Arsenic	22.9	4.6	2.8	3.0	0.7	22.9	0.7	0.8	1.0
Barium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium	1.2	0.5	0.5	0.7	0.1	1.2	0.4	0.4	0.2
Chromium	39.3	4.2	2.0	3.2	1.2	27.3	0.7	4.7	3.7
Cobalt	2.0	1.2	1.3	1.7	1.5	2.0	1.2	1.4	1.3
Copper	5.6	2.8	2.6	2.8	0.7	5.6	0.7	3.1	0.8
Cyanide	17.0	3.9	16.6	27.7	0.0	17.0	5.0	3.9	0.0
Iron	1.0	0.6	0.5	0.7	0.4	1.0	0.5	0.7	0.6
Lead	11.0	0.8	1.1	1.6	2.3	5.2	1.6	0.9	2.1
Manganese	0.6	0.4	0.3	0.9	0.9	0.6	0.4	1.1	0.2
Mercury	2.6	1.0	0.8	1.4	0.5	2.6	0.1	0.2	0.4
Nickel	0.4	0.4	0.3	0.4	0.1	0.4	0.3	0.2	0.4
Selenium	17.8	11.5	4.4	6.7	5.4	17.0	5.2	4.6	5.6
Silver	0.3	0.3	0.2	0.0	0.1	0.3	0.1	0.1	0.8
Thallium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium	1.2	0.9	0.8	1.0	0.5	1.2	0.8	0.6	2.0
Zinc	2.6	1.1	1.6	1.7	0.7	2.6	0.4	0.5	0.3
HAZARD INDEX	127.5	34.5	36.2	54.1	15.3	107.9	18.8	23.6	19.8

N/A - not available

0.0 - indicates the HQ was <0.05

Shaded - HQ or HI >1.0

Shaded and Boxed - HQ or HI >10

US EPA ARCHIVE DOCUMENT

TABLE 4-263
HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH
MAXIMUM DETECTION HQ
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Reference	River Reference	Wetland Reference
Volatile Organics									
2-Butanone	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0
Acetone	20.4	89.9	0.0	0.0	0.0	15.5	21.8	6.2	0.0
cis-1,2-Dichloroethene	0.1	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tetrachloroethene	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trichloroethene	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAZARD INDEX	21.2	89.9	0.2	0.1	0.1	15.7	22.1	6.2	0.0
Semivolatile Organics									
2-Methylnaphthalene	0.0	0.2	0.3	0.0	0.1	0.1	0.1	0.0	0.1
Acenaphthylene	0.1	0.2	0.8	0.2	0.4	0.5	0.6	0.7	1.3
Anthracene	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Benzo(a)anthracene	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0
Benzo(a)pyrene	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0
Benzo(b)fluoranthene	0.0	0.0	0.4	0.0	0.1	0.1	0.0	0.0	0.1
Benzo(g,h,i)perylene	0.1	0.0	0.5	0.1	0.1	0.2	0.1	0.0	0.0
Benzo(k)fluoranthene	0.1	0.1	1.3	0.1	0.2	0.3	0.2	0.1	0.3
Carbazole	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	0.0	0.0	0.6	0.2	0.2	0.3	0.1	0.1	0.2
Dibenz(a,h)anthracene	0.0	0.0	0.5	0.1	0.0	0.2	0.1	0.0	0.0
Dibenzofuran	N/A	0.1	0.1	0.0	0.1	0.1	N/A	N/A	N/A
Fluoranthene	0.1	0.0	0.7	0.1	0.1	0.2	0.1	0.1	0.1
Fluorene	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Indeno(1,2,3-cd)pyrene	0.0	0.0	0.6	0.1	0.1	0.2	0.1	0.1	0.1
Naphthalene	0.4	0.1	0.2	0.0	0.1	0.2	0.1	0.1	0.1
N-nitrosodiphenylamine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene	0.0	0.0	0.4	0.1	0.1	0.1	0.0	0.0	0.1
Pyrene	0.0	0.0	0.5	0.1	0.2	0.2	0.1	0.0	0.1
HAZARD INDEX	1.0	1.0	7.4	1.1	2.1	3.0	1.7	1.3	2.8
Pesticides and PCBs									
4,4'-DDD	0.5	0.1	0.4	0.2	1.0	0.6	0.2	0.3	0.7
4,4'-DDE	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.2	0.0
4,4'-DDT	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.1
Aldrin	0.0	0.0	0.0	0.0	N/A	0.0	0.0	0.0	0.0
alpha-Chlordane	0.2	0.0	0.4	0.1	0.1	0.1	0.1	0.0	0.0
Aroclor 1248	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1254	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1260	1.0	N/A	0.1	0.0	0.1	0.2	0.0	0.0	0.1
beta-BHC	0.0	0.0	0.0	0.0	N/A	0.0	0.0	0.0	0.0
delta-BHC	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Endosulfan I	0.5	0.0	0.0	0.0	N/A	0.0	1.0	0.5	0.0
Endosulfan Sulfate	0.0	0.0	0.2	0.0	N/A	0.0	0.2	0.1	0.1
Endrin Aldehyde	0.0	0.0	0.0	0.0	N/A	0.0	0.0	0.0	0.0
gamma-Chlordane	1.1	0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0
HAZARD INDEX	4.2	0.2	1.7	0.5	1.4	1.2	1.6	1.4	1.0

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TABLE 4-263
HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES BY REACH
MAXIMUM DETECTION HQ
WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Pond Reference	River Reference	Wetland Reference
Inorganics									
Aluminum	1.3	0.8	0.9	0.6	0.3	1.0	0.8	0.5	0.6
Antimony	13.2	0.9	0.2	0.1	0.1	0.4	0.1	0.2	0.0
Arsenic	138	42.7	14.7	4.1	0.8	47.6	1.0	1.3	1.2
Barium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium	3.7	3.5	1.3	1.0	0.2	3.8	0.4	0.6	0.3
Chromium	224	48.3	8.3	4.0	1.4	27.3	1.4	4.7	3.7
Cobalt	5.8	13.0	3.3	2.1	1.6	7.2	1.9	2.2	1.3
Copper	21.3	34.2	14.2	4.0	0.7	11.4	1.1	3.1	1.2
Cyanide	121	8.5	38.0	33.0	0.0	44.0	0.0	0.0	0.0
Iron	6.5	2.2	0.9	1.0	0.4	2.7	0.7	1.3	0.6
Lead	164	2.7	2.6	1.8	2.6	5.2	3.0	1.5	2.3
Manganese	1.8	2.4	0.5	1.5	0.9	2.8	0.8	1.8	0.2
Mercury	22.4	44.6	2.9	1.6	0.6	6.8	0.3	0.3	0.4
Nickel	2.0	2.4	0.5	0.5	0.1	0.9	0.4	0.3	0.4
Selenium	101	31.0	10.3	11.3	N/A	17.0	10.7	10.0	7.0
Silver	1.4	N/A	0.3	0.0	0.1	0.4	0.2	0.2	0.8
Thallium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium	3.3	2.3	1.6	1.2	0.5	3.6	1.1	1.1	3.0
Zinc	6.0	10.7	3.4	2.3	0.7	9.4	0.8	0.7	0.3
HAZARD INDEX	836.2	250.0	104.0	70.2	10.8	191.2	24.8	29.8	23.3

N/A - not available
0.0 - indicates the HQ was <0.05
Shaded - HQ or HI >1.0

Shaded and Boxed - HQ or HI >10

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TABLE 4-264
SUMMARY OF AVS-SEM DATA
SUMMER MONTHS

WELLS G&H SUPERFUND SITE OU3

Location	Sample Date	SEM-AVS (umol/g)	TOC (mg/kg dry wt)	f_{oc} (g_{OC}/g sed)	SEM-AVS/f_{oc} (umol/g_{OC})
SD-01-01-FW	8/15/1995	-1.6	114	0.0001	-14,033
SD-01-02-FW	8/15/1995	0.7	2,100	0.002	311
SD-01-03-FW	8/15/1995	-0.1	114	0.0001	-853
SD-01-04-FW	8/15/1995	0.9	17,000	0.017	52
SD-01-05-FW	8/15/1995	-14.4	116	0.0001	-124,534
SD-01-06-FW	8/15/1995	-110.6	65,700	0.066	-1,683
SD-01-07-FW	8/15/1995	-19.0	9,100	0.009	-2,085
SD-01-08-FW	8/15/1995	1.1	830	0.001	1,334
SD-01-09-FW	8/15/1995	1.6	2,410	0.002	672
SD-01-10-FW	8/15/1995	-8.5	11,000	0.011	-772
SD-02-01-FW	8/16/1995	-0.5	6,525	0.007	-75
SD-02-01-02-FW	8/16/1995	6.4	6,525	0.007	986
SD-02-02-FW	8/16/1995	-0.2	9,420	0.009	-20
SD-02-03-FW	8/16/1995	-16.8	2,690	0.003	-6,250
SD-03-01-FW	8/16/1995	-2.2	1,170	0.001	-1,870
SD-03-02-FW	8/16/1995	-38.9	55,000	0.055	-707
SD-03-03-FW	8/16/1995	-0.7	602	0.001	-1,122
SD-04-01-FW	8/17/1995	-26.2	21,500	0.022	-1,220
SD-04-02-FW	8/17/1995	-86.0	54,400	0.054	-1,580
SD-04-03-FW	8/17/1995	-21.1	93,400	0.093	-226
SD-05-01-FW	8/17/1995	1.1	3,840	0.004	281
SD-05-02-FW	8/17/1995	1.0	1,840	0.002	548
SD-05-03-FW	8/17/1995	-20.5	56,000	0.056	-367
SD-06-01-FW	8/18/1995	-51.2	46,700	0.047	-1,096
SD-06-02-FW	8/18/1995	-251.5	41,600	0.042	-6,047
SD-06-03-FW	8/18/1995	-392.6	69,900	0.070	-5,616
SD-06-03-TR	6/26/2001	13.7	100,000	0.100	137
SD-07-01-FW	8/18/1995	-19.5	15,150	0.015	-1,290
SD-07-01-02-FW	8/18/1995	-16.6	15,150	0.015	-1,097
SD-07-02-FW	8/21/1995	-22.2	93,000	0.093	-239
SD-07-03-FW	8/21/1995	-9.9	13,800	0.014	-721
SD-07-04-FW	8/29/1995	-65.0	83,600	0.084	-777
SD-07-05-FW	8/21/1995	-385.3	88,700	0.089	-4,344
SD-07-06-FW	8/21/1995	19.3	70,100	0.070	275
SD-07-07-FW	8/21/1995	-83.5	52,700	0.053	-1,585
SD-07-08-FW	8/21/1995	-41.8	25,500	0.026	-1,641
SD-07-09-FW	8/21/1995	-11.6	82,700	0.083	-140
SD-07-10-FW	8/21/1995	-77.1	99,000	0.099	-779
SD-08-01-FW	8/21/1995	12.5	117	0.0001	106,951
SD-08-02-FW	8/21/1995	6.2	17,900	0.018	347
SD-08-03-FW	8/21/1995	6.5	7,560	0.008	859
SD-09-01-FW	8/22/1995	2.4	4,230	0.004	566
SD-09-02-FW	8/22/1995	0.6	46,200	0.046	14
SD-09-03-FW	8/22/1995	-15.2	7,320	0.007	-2,082
SD-09-04-FW	8/22/1995	-0.6	121	0.0001	-4,976
SD-09-05-FW	8/22/1995	-14.4	114	0.0001	-126,125
SD-09-06-FW	8/22/1995	-7.0	1,050	0.001	-6,708
SD-09-07-FW	8/22/1995	4.4	10,900	0.011	407
SD-09-08-FW	8/22/1995	2.6	117	0.0001	22,426
SD-09-09-FW	8/22/1995	1.6	117	0.0001	13,877
SD-09-10-FW	8/22/1995	7.2	3,860	0.004	1,863
SD-10-01-FW	8/23/1995	-88.8	229,500	0.230	-387
SD-10-01-02-FW	8/23/1995	-201.5	262,000	0.262	-769
SD-10-02-FW	8/23/1995	-34.8	262,000	0.262	-133
SD-10-02-TR	6/22/2002	36.6	680,000	0.680	54
SD-10-03-FW	8/23/1995	21.9	97,300	0.097	226

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TABLE 4-264
SUMMARY OF AVS-SEM DATA
SUMMER MONTHS

WELLS G&H SUPERFUND SITE OU3

Location	Sample Date	SEM-AVS (umol/g)	TOC (mg/kg dry wt)	f_{oc} (g_{OC}/g sed)	SEM-AVS/f_{oc} (umol/g_{OC})
SD-11-01-FW	8/24/1995	87.9	36,700	0.037	2,396
SD-11-02-FW	8/24/1995	-727.9	49,900	0.050	-14,588
SD-11-03-FW	8/24/1995	-0.1	121,000	0.121	-1
SD-12-01-FW	8/31/1995	-34.6	173,000	0.173	-200
SD-12-02-FW	8/31/1995	-34.4	105,000	0.105	-328
SD-12-03-FW	8/31/1995	-68.4	42,200	0.042	-1,620
SD-12-03-TR	6/19/2001	3.4	150,000	0.150	23
SD-13-01-FW	9/8/1995	-18.4	234,000	0.234	-79
SD-13-01-TR	6/22/2001	18.2	300,000	0.300	61
SD-13-02-FW	9/8/1995	-59.1	385,000	0.385	-154
SD-13-03-FW	9/8/1995	23.0	229,000	0.229	101
SD-14-01-FW	9/5/1995	-19.7	11,000	0.011	-1,793
SD-14-02-FW	9/5/1995	4.2	4,480	0.004	937
SD-14-03-FW	9/5/1995	12.4	12,300	0.012	1,010
SD-15-01-FW	9/5/1995	-65.9	432,000	0.432	-152
SD-15-02-FW	9/5/1995	-5.0	381,000	0.381	-13
SD-15-03-FW	9/5/1995	30.0	450,000	0.450	67
SD-16-01-FW	8/29/1995	1.3	1,390	0.001	899
SD-16-02-FW	8/23/1995	3.3	125	0.0001	26,635
SD-16-03-FW	8/23/1995	1.4	3,040	0.003	452
SD-18-01-FW	8/29/1995	1.3	61,100	0.061	21
SD-18-02-FW	9/7/1995	-29.8	259,000	0.259	-115
SD-18-02-TR	6/21/2001	24.5	300,000	0.300	82
SD-18-03-FW	9/7/1995	-172.4	262,000	0.262	-658
SD-19-01-FW	8/31/1995	-22.8	323,500	0.324	-70
SD-19-02-FW	8/31/1995	0.5	380,000	0.380	1
SD-19-01-02-FW	8/31/1995	4.1	323,500	0.324	13
SD-19-03-FW	8/31/1995	38.8	363,000	0.363	107
SD-19-01-TR	6/19/2001	16.9	290,000.000	0.290	58
SD-20-01-FW	9/7/1995	15.4	362,000	0.362	43
SD-20-01-02-FW	9/7/1995	3.7	362,000	0.362	10
SD-20-02-FW	9/7/1995	29.8	234,000	0.234	127
SD-20-03-FW	9/7/1995	48.2	247,000	0.247	195
SD-21-01-FW	9/8/1995	51.1	288,000	0.288	177
SD-21-02-FW	9/8/1995	46.8	441,000	0.441	106
SD-21-03-FW	9/8/1995	30.8	244,000	0.244	126
SD-22-01-FW	9/8/1995	-1.9	371,000	0.371	-5
SD-22-02-FW	9/8/1995	5.3	198,000	0.198	27
SD-22-03-FW	9/8/1995	0.4	514,000	0.514	1
SD-22-01-TR	6/18/2001	1.1	430,000	0.430	3
SD-TT-30-01-TR	6/22/2001	20.5	240,000	0.240	85
SD-TT-32-02-TR	6/20/2001	11.7	150,000	0.150	78
SD-TT-33-02-TR	6/20/2001	7.1	86,000	0.086	83
SD-UF-02-TR-02	6/27/2001	14.9	360,000	0.360	41
SD-UF-02-TR	6/27/2001	25.3	360,000	0.360	70
SD-WH-07-TR	6/18/2001	3.3	815,000	0.815	4
SD-WH-07-TR-02	6/18/2001	2.8	815,000	0.815	3
SD-WW-06-TR	6/21/2001	14.8	760,000	0.760	19
SD-AO-03-TR	6/27/2001	24.4	210,000	0.210	116
SD-AO-03-TR-02	6/27/2001	18.0	210,000	0.210	86

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TABLE 4-264
SUMMARY OF AVS-SEM DATA
SUMMER MONTHS

WELLS G&H SUPERFUND SITE OU3

Location	Sample Date	SEM-AVS (umol/g)	TOC (mg/kg dry wt)	f_{oc} (g_{OC}/g sed)	SEM-AVS/f_{oc} (umol/g_{OC})
Reference					
SD-MC-01-TR	6/25/2001	2.7	270,000	0.270	10
SD-MC-01	6/21/1999	-4.8	160,000	0.160	-30
SD-MC-02	6/21/1999	-109.9	370,000	0.370	-297
SD-MC-03-TR	6/25/2001	8.2	330,000	0.330	25
SD-MC-03	6/18/1999	-37.9	110,000	0.110	-344
SD-MC-04-TR	6/26/2001	8.2	290,000	0.290	28
SD-MC-04	6/17/1999	10.2	120,000	0.120	85
SD-12-00-IP	6/17/1999	0.6	130,000	0.130	5
SD-23-01-FW	8/29/1995	-0.9	24,300	0.024	-38
SD-23-02-FW	8/29/1995	-4.1	4,800	0.005	-859
SD-23-03-FW	8/29/1995	-0.2	427,000	0.427	0
SD-24-01-FW	8/29/1995	-2.6	2,810	0.003	-912
SD-24-02-FW	8/29/1995	-26.3	17,900	0.018	-1,467
SD-24-03-FW	8/29/1995	5.3	183,000	0.183	29
SD-25-01-FW	9/11/1995	1.0	52,600	0.053	19
SD-25-02-FW	9/11/1995	4.2	71,600	0.072	59
SD-25-03-FW	9/11/1995	0.1	12,000	0.012	4
SD-26-01-FW	9/11/1995	-12.2	36,800	0.037	-333
SD-26-02-FW	9/11/1995	-5.9	12,050	0.012	-490
SD-26-02-02-FW	9/11/1995	-8.7	12,050	0.012	-719
SD-26-03-FW	9/11/1995	-5.3	47,200	0.047	-113
SD-27-01-FW	9/12/1995	-12.9	13,400	0.013	-964
SD-27-02-FW	9/10/1995	-0.2	7,650	0.008	-32
SD-27-03-FW	9/12/1995	-15.2	10,000	0.010	-1,518
SD-SA-01-TR	6/25/2001	3.7	170,000	0.170	22
SD-HB-00-TR	6/26/2001	2.8	250,000	0.250	11

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TABLE 4-265
SUMMARY OF AVS-SEM DATA
WINTER MONTHS

WELLS G&H SUPERFUND SITE OU3

Location	Sample Date	SEM-AVS (umol/g)	TOC (mg/kg dry wt)	f_{oc} (g_{OC}/g sed)	SEM-AVS/f_{oc} (umol/g_{OC})
SD-01-06-ME	11/12/1997	-42.7	230,000	0.230	-186
SD-02-01-ME	11/13/1997	-22.5	125,000	0.125	-180
SD-02-02-ME	11/13/1997	-89.7	160,000	0.160	-561
SD-03-02-ME	11/13/1997	-60.3	195,000	0.195	-309
SD-04-03-ME	11/14/1997	-1.6	255,000	0.255	-6
SD-05-03-ME	11/13/1997	-19.1	59,100	0.059	-323
SD-05-03-02-ME	11/14/1997	-12.2	59,100	0.059	-207
SD-06-03-ME	11/18/1997	8.0	197,000	0.197	41
SD-07-02-ME	11/20/1997	-3.0	194,000	0.194	-15
SD-07-05-ME	11/20/1997	-30.6	210,000	0.210	-146
SD-07-10-ME	11/19/1997	8.1	218,000	0.218	37
SD-10-01-ME	11/19/1997	-36.1	465,000	0.465	-78
SD-10-02-ME	11/19/1997	11.7	463,000	0.463	25
SD-10-01-02-ME	11/19/1997	-36.5	465,000	0.465	-79
SD-11-01-ME	11/14/1997	8.3	387,000	0.387	21
SD-12-01-ME	11/20/1997	-16.3	912,000	0.912	-18
SD-12-03-ME	11/20/1997	8.9	431,000	0.431	21
SD-13-01-ME	11/17/1997	2.3	232,000	0.232	10
SD-13-03-ME	11/17/1997	5.3	118,000	0.118	45
SD-15-01-ME	11/17/1997	-3.2	702,000	0.702	-5
SD-18-02-ME	11/18/1997	10.3	361,000	0.361	29
SD-18-03-ME	11/18/1997	13.2	423,000	0.423	31
SD-19-01-ME	11/19/1997	4.3	686,000	0.686	6
SD-20-01-ME	11/17/1997	7.6	441,000	0.441	17
SD-21-01-ME	11/14/1997	-0.3	344,000	0.344	-0.76
SD-22-02-ME	11/12/1997	23.4	693,000	0.693	34
Reference					
SD-24-03-ME	11/12/1997	-4.3	153,000	0.153	-28
SD-25-02-ME	11/18/1997	0.9	59,200	0.059	15

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TABLE 4-266
COMPARISON OF COPC CONCENTRATIONS IN SITE CRAYFISH TISSUE AGAINST REFERENCE DATA AND TISSUE RESIDUE BENCHMARKS

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Site Average Conc. mg/kg bw	Reference Average Conc. mg/kg bw	Ratio Site to Reference	Site [1] Average Conc. *u* g/g lipid	Reference Average Conc. *u* g/g lipid	Ratio Site to Reference	Benchmark Conc. mg/kg	Species [2]	Effect	Endpoint	Fraction	Exposure Route	Life-Stage	Effect	ERED Reference ID [3]
Pesticides/PCBs															
4,4'-DDD	0.0024	0.0008	3.1	0.2809	0.0755	3.7	na								
4,4'-DDE	0.0050	0.0047	1.1	0.592	0.454	1.3	na								
4,4'-DDT	0.0012	0.0005	2.4	0.1376	0.0495	2.8	0.0465	*Orconectes nais* (crayfish)	Mortality	NOED	Whole Body	Absorption	Adult	No effect over 3 days	URS136
Aldrin	0.0003	0.0003	1.1	0.0351	0.0255	1.4	na								
alpha-Chlordane	0.0009	0.0003	3.7	0.1105	0.0255	4.3	na								
Aroclor-1260	0.0258	0.0052	5.0	3.1565	0.519	6.1	23 [a]	*Callinectes sapidus* (blue crab)	Mortality	NOED	Whole Body	Absorption	Immature	No effect over 20 days	URS74
Endosulfan I	0.0004	0.0003	1.5	0.0476	0.0255	1.9	na								
Endosulfan sulfate	0.0008	0.0005	1.6	0.0895	0.0495	1.8	na								
Endrin aldehyde	0.0020	0.0005	4.2	0.2443	0.0495	4.9	na								
gamma-Chlordane	0.0004	0.0003	1.6	0.0483	0.0255	1.9	na								
Inorganics															
Aluminum	50.0	9.75	5.1				na								
Arsenic	2.2	0.1925	11.5				na								
Barium	10.2	15.4	0.7				na								
Cadmium	0.1	0.08	0.9				22	*Cambarus latimanus* (crayfish)	Mortality	LOED	Whole Body	Combined	Adult	Sig. greater mortality than control	URS209
Chromium	1.1	0.18	6.3				na								
Cobalt	0.4	0.42	1.0				na								
Copper	49.7	20.1	2.5				26	*Orconectes rusticus* (crayfish)	Mortality	NOED	Whole Body	Absorption	Adult	No effect on survivorship	URS79
Iron	345.0	66.35	5.2				na								
Lead	0.8	0.0333	23.4				na								
Manganese	98.9	106	0.9				na								
Mercury	0.009	0.0055	1.7	0.0012	0.0005	2.4	12.32	*Uco pugnax* (fiddler crab)	Developmen	LOED	Whole Body	Adsorption	Adult	Inhibition of limb regeneration and molting	URS50
Selenium	0.407	0.16	2.5				na								
Silver	0.032	0.155	0.2				na								
Thallium	0.083	0.065	1.3				na								
Zinc	25.4	18.15	1.4				na								

ERED - U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Environmental Residue-Effects Database (last update - February 1998)
Conc. - concentration
ID - identification number
na - no test data available in the ERED database for species group included in search
NOED - no observed effect dose
LOED - lowest observed effect dose

1 With exception of mercury, lipid normalized tissue concentrations were not calculated for inorganic COPCs because inorganics are not expected to preferentially concentrate in lipid material
2 The ERED database was queried for data on crayfish, lobsters and crabs, all members of Order Decapoda.
3 Citations for primary references are provided in the ERED database

a Test involved PCBs, specific congeners not indicated

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TABLE 4-267
SUMMARY OF TOXICITY TESTING RESULTS AS COMPARED TO LABORATORY CONTROLS
WELLS G&H SUPERFUND SITE OU3

Station	Habitat	*C. tentans*, 10-day Acute		*C. tentans*, Life Cycle Chronic					*H. azteca*, 10-day Acute		*H. azteca*, 42-day Chronic		
		survival	growth	survival	growth	% emerged	days to emerge	% hatched	survival	growth	survival	growth	repro-duction
SA	wetland-R												
HB	wetland-R	p <0.05		p <0.05		p <0.05							
WW	wetland												
WH	wetland							p <0.05					
TT-33	wetland						p <0.05	p <0.05					
TT-32	wetland						p <0.05	p <0.05					
22	wetland												
19	wetland							p <0.05					
13	wetland		p <0.05				p <0.05						
04-IP	stream-R												
01-IP	stream-R												
TT-30	stream												
TT-29	stream												
18	stream						p <0.05						p <0.05
12	stream		p <0.05									p <0.05	
10	stream												
03-IP	pond-R								p <0.05				
UF	pond												
6	pond			p <0.05		p <0.05							
4	pond		p <0.05			p <0.05							

p< 0.05 indicates a statistically significant difference (p<0.05) in the response for this endpoint ascompared to laboratory controls

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TABLE 4-268
SUMMARY OF TOXICITY TESTING RESULTS AS COMPARED TO CORRESPONDING REFERENCE SAMPLES
WELLS G&H SUPERFUND SITE OU3

Station	Habitat[1]	*C. tentans*, 10-day Acute		*C. tentans*, Life Cycle Chronic				*H. azteca*, 10-day Acute		*H. azteca*, 42-day Chronic			Toxicity Index[2]
		survival	growth	survival	growth	% emerged	% hatched	survival	growth	survival	growth	reproduction	
SA	wetland-R												0
HB	wetland-R												0
WW	wetland												0
WH	wetland												0
TT-33	wetland		p <0.05		p <0.05				p <0.05				3
TT-32	wetland		p <0.05		p <0.05				p <0.05				3
22	wetland												0
19	wetland		p <0.05		p <0.05				p <0.05				3
13	wetland		p <0.05		p <0.05				p <0.05				3
04-IP	stream-R												0
01-IP	stream-R												0
TT-30	stream		p <0.05										1
TT-29	stream				p <0.05								1
18	stream												0
12	stream		p <0.05										1
10	stream	p <0.05	p <0.05										2
03-IP	pond-R												0
UF	pond												0
6	pond		p <0.05										1
4	pond		p <0.05										1

p <0.05 indicates a statistically significant difference (p<0.05) in the response for this endpoint as compared to field reference

[1] "R" indicates a reference location

[2] Toxicity Index was computed by summing the number of tests significantly different (p<0.05) from the field reference.

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TABLE 4-269
SUMMARY OF BENTHIC INVERTEBRATE COMMUNITY INDICES AT 20 TOXICITY TESTING STATIONS
WELLS G&H SUPERFUND SITE OU3

Station	Habitat[1]	Total Invertebrate Abundance[2]	Number of Taxa[3]	Shannon - Weiner Diversity Index	Pielou's Evenness Index	CommunityLoss Index	Average Percent Chironomids	Average Percent Oligochaetes	Percent Chironomids + Percent Oligochaetes	Percent Dominant	Dominant taxon	Higher Taxa of Dominant	Tolerance Value of Dominant Species[4]	Community Index[5]
HB	wetland-R	1318	36	1.33	0.40	0.00	5	11	16	44	*Hyalella azteca*	Amphipoda	8	0
SA	wetland-R	1097	29	1.40	0.48	0.93	83	12	95	61	*Chironomus decorus*	Chironomidae	10	0
TT-33	wetland	1122	22	0.88	0.36	1.23	3	94	97	71	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	6
TT-32	wetland	1938	35	1.15	0.37	0.69	3	88	91	75	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	3
13	wetland	1943	36	1.73	0.56	0.53	12	64	76	68	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	1
WW	wetland	554	34	1.76	0.58	0.74	11	16	27	53	*Pisidium* sp.	Pelecypoda	8	1
19	wetland	508	31	1.77	0.64	0.84	49	34	83	45	*Chironomus decorus*	Chironomidae	10	2
22	wetland	1108	39	2.40	0.74	0.69	37	15	52	27	*Caecidotea communis*	Isopoda	6	0
WH	wetland	488	30	2.29	0.77	1.00	4	33	37	21	*Caecidotea communis*	Isopoda	6	2
01-IP	stream-R	1348	31	1.64	0.55	0.65	4	90	94	40	*Aulodrilus limnobius*	Oligochaeta	5.2[a]	0
04-IP	stream-R	1179	38	2.06	0.64	0.00	39	53	92	32	*Aulodrilus limnobius*	Oligochaeta	5.2[a]	0
12	stream	1824	21	0.47	0.20	1.29	0.4	97	97	90	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	7
TT-29	stream	3065	23	0.72	0.30	1.09	0.3	99	99	69	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	7
18	stream	4750	27	1.01	0.35	0.81	5	94	99	69	*Ilyodrilus templetoni*	Oligochaeta	9.4[a]	7
TT-30	stream	980	36	1.30	0.43	0.47	14	68	82	74	*Limnodrilus claparedianus*	Oligochaeta	9.6[a]	3
10	stream	68	8	0.86	0.61	4.13	1	89	90	74	*Ilyodrilus templetoni*	Oligochaeta	9.4[a]	6
03-IP	pond-R	19	6	0.99	0.92		42	0	42	42	*Chaoborus punctipennis*	Diptera	8[b]	
4	pond	4972	33	1.37	0.45	0.09	1	96	97	50	*Dero digitata*	Chironomidae	8	
UF	pond	2278	31	1.64	0.55	0.10	3	94	97	40	*Aulodrilus pigueti*	Oligochaeta	4.7[a]	
6	pond	896	30	1.72	0.62	0.10	37	61	98	35	*Limnodrilus hoffmeisteri*	Oligochaeta	9.8[a]	

[1] "R" indicates a reference location

[2] Total number of organisms observed in all three replicate sediment samples, highlighted samples are 20% less than the lower of the reference values

[3] Total number of taxa observed in all three replicate sediment samples

[4] Regional Tolerance Values (Mid-Atlantic), (Barbour, et al., 1999)

[5] Community Index was computed by summing the number of tests indicating impariment as compared to corresponding reference locations (shaded cells).

[a] Regional Tolerance Values (Southeast), (Barbour, et al., 1999)

[b] Regional Tolerance Values (Midwest), (Barbour, et al., 1999)

Shaded cells correspond to indicator values at levels less than the lower of the two reference locations for Total Abundance, Number of Taxa, Diverstiy, and Evenness and greater than reference for Community Loss, Percent Oligochaetes + Chironomids, Percent Dominant and Tolerance Value.

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TABLE 4-270

PEARSON CORRELATIONS COEFFICIENTS FOR SELECTED CHEMICAL CHARACTERISTICS OF SEDIMENTS WITH SELECTED BENTHIC COMMUNITY INDICES
WELLS G&H SUPERFUND SITE OU3

Benthic Invertebrate Community Variables	Sediment Chemistry Variables								
	TOC	SEM	SEM/AVS	Arsenic	Chromium	Copper	Lead	Mercury	Zinc
Toxicity Index	-0.366	0.383	-0.147	0.621*	0.345	0.435	-0.301	0.421	0.361
Community Index	-0.217	0.686*	-0.377	0.727**	0.630*	0.750**	-0.052	0.571*	0.716**
Invertebrate Abundance	-0.234	0.265	0.081	0.277	0.241	0.323	0.029	0.369	0.405
Number of Taxa	-0.072	-0.306	0.165	-0.317	-0.145	-0.315	0.195	-0.177	-0.308
Pielou's Evenness	0.627*	-0.259	0.197	-0.42	-0.423	-0.408	0.306	-0.476*	-0.373
Shannon Diversity	0.477*	-0.423	0.104	-0.537*	-0.435	-0.544*	0.472*	-0.532*	-0.506*
Percent Dominance	-0.433	0.489*	-0.091	0.619*	0.606*	0.641*	-0.290	0.583*	0.531*
Percent Chironomids + Oligochates	-0.540*	0.405	-0.158	0.601*	0.357	0.573*	-0.172	0.639*	0.485*
Growth *H. azteca*	0.102	-0.480*	0.291	-0.520*	-0.559*	-0.505*	0.041	-0.344	-0.521*
Growth *C. tentans*	0.067	-0.597*	0.105	-0.645*	-0.568*	-0.669*	-0.261	-0.453	-0.609*

***** Indicates a statistically significant correlation ($p<0.05$), with probabilities not adjusted for multiple comparisons

****** Indicates a statistically significant correlation ($p<0.05$), with probabilities adjusted (Bonferroni) for multiple comparisons

1 Toxicity Index was computed by summing the number of tests significantly different ($p<0.05$) from the field reference.

TABLE 4-271
HAZARD QUOTIENT SUMMARY FOR MUSKRAT, USING LOAEL[1] TRVS[2]

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT[3]				
			Arsenic	Chromium	Copper	Lead	Mercury
Reference	Pond						
Reference	Wetland						
Reference	River						
1	Lake	6					
2	Lake	6					
3	Lake	6					
4	Lake	6					
5	River	5					
6	River	4					
7	River	3					
8	River	2					
9	River	2					
10	River	1	6.0		3.1		1.6
11	River	1	2.0				
12	River	1	9.9		1.2		1.6
13	Wetland	1	9.1		1.9		1.2
14	River	1					
15	Wetland	1	1.2				
16	River	2					
18	Wetland	1	5.0		1.6		
19	Wetland	1	17.4		1.3		
20	Wetland	1	2.0		1.9		
21	Wetland	1	1.2				1.5
AM	River	2					
AS	River	3					
BW	Wetland	1	8.9		1.7		1.0
CB-01	Wetland	2					
CB-02	Wetland	2					
CB-03	Wetland	2	1.9				
CB-04	Wetland	2					
CB-06	Wetland	2					
JY	Wetland	1	1.0				
KFSE	River	2					
LP	River	3					
NRSE	Wetland	1	1.2				
TT-28	River	1	5.2	1.0	1.8		
TT-29	River	1	5.2	1.1	1.8		1.3
TT-30	River	2	4.1		2.5		3.9
TT-31	Wetland	2					
TT-32	River	2	1.8				
TT-33	River	2	1.7				
UF	Lake	6					
WG	Wetland	1					
WH	Wetland	1				1.1	
WS	River	1	1.2				
WW	Wetland	1		4.5			
% of OU3 stations (non-reference) with HQ>1			44	7	23	2	16

[1] LOAEL: Lowest Observed Adverse Effect Level

[2] TRV: Toxicity Reference Value

[3] A blank cell indicates that the HQ was less than 1.0

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TABLE 4-272
HAZARD QUOTIENT SUMMARY FOR HERON AND MALLARD, USING LOAEL[1] TRVS[2]

WELLS G&H SUPERFUND SITE OU3

Species	Case	COPC HAZARD QUOTIENT			
		Arsenic	Chromium	Lead	Mercury
Heron	Reference Average				
	Reference 95% UCL				
	Site-wide[3] Average				
	Site-wide 95% UCL				
Mallard	Reference Average				
	Reference 95% UCL				
	Site-wide[4] Average				
	Site-wide 95% UCL				
	38-acre[5] Average		1.0		
	38-acre 95% UCL		1.8		

[1] LOAEL: Lowest Observed Adverse Effect Level

A blank cell indicates that the HQ was less than 1.0

[2] TRV: Toxicity Reference Value

[3] Stations included in the heron site-wide analysis are shown in Table 4-32

[4] Stations included in the mallard site-wide analysis are shown in Table 4-32

[5] Stations included in the mallard 38-acre wetland analysis are shown in Table 4-32

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TABLE 4-273
HAZARD QUOTIENT SUMMARY FOR SHREW, USING LOAEL[1] RTVS[2]

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT						
			Aroclor 1254	Antimony	Arsenic	Cadmium	Chromium	Lead	Mercury
	Wetland	Reference[3]							
20	Wetland	1			1.5				
21	Wetland	1							
22/TT-22	Wetland	1		1.3					
BW	Wetland	1			5.9				
CB-01	Wetland	2							
CB-02	Wetland	2							
CB-03	Wetland	2			1.4				
CB-04	Wetland	2							
CB-05	Wetland	2							
CB-06	Wetland	2							
DA	River	2							
NRSE	Wetland	1							
JY	Wetland	1							
NRSO	River	1							
KFSO	River	2							
WSS	Wetland	1							
WG	Wetland	1							
WH	Wetland	1							
WS	River	1							
% of OU3 stations (non-reference) with HQ>1			0	5	16	0	0	0	0

[1] LOAEL: Lowest Observed Adverse Effect Level

[2] RTV: Reference Toxicity Value.

[3] Referece stations include 24, HB, and SA.

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TABLE 4-274
COPC SUMMARY FOR ALL INDICATOR SPECIES OR GROUPS

WELLS G&H SUPERFUND SITE OU3

Species	COPC						
	Arsenic	Cadmium	Copper	Chromium	Lead	Mercury	Zinc
Piscivorus birds							
Waterfowl				X	X	X	
Semi-aquatic mammals	X		X	X	X	X	
Small terresrial mammals	X						
Fish							
Invertebrates[1]	X	X	X	X	X	X	X

X - An "X" in the box indicates potential to population risk from the COPC based on NOAEL TRVs, exceeding reference values

Shading in the box indicates potential risk to populations from exposure to the COPC based on LOAEL TRVs

[1] X indicates an HQ >1, shading indicates a HQ > 10 for the average case scenario

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TABLE 4-275
SUMMARY OF THE RELATIVE MAGNITUDE OF UNCERTAINTLY ASSOCIATED WITH EACH RECEPTOR AND COPC

WELLS G&H SUPERFUND SITE OU3

Species / Endpoint	Risk Summary by COPC[1]	Major Uncertainties and Assumptions	Relative Magnitude of Uncertainty
Piscivorus birds	No COPCs with Risk	Fish tissue site-specific	Low
		Crayfish tissue site-specific, but represents one species	Moderate
		TRVs (conservative NOAEL TRVs used)	Low
Waterfowl	General	Plant tissue from site-specific uptake factors	Moderate
		Crayfish tissue site-specific, but represents one species	Moderate
		Bioavailbitiy of metals	Moderate
	Chromium -low	TRV -Chromium	Moderate
	Lead - low	TRV - Lead	Moderate
	Mercury -low	TRV - Mercury	Moderate
Semi-aquatic mammals	General	Crayfish tissue site-specific, but represents one species	Moderate
		Plant tissue from site-specific uptake factors	Moderate
		Bioavailbitiy of metals	Moderate
	Arsenic - High	TRV - Arsenic	Moderate
	Lead - Low	TRV - Lead	Moderate
	Mercury - Low	TRV - Mercury	Moderate
Small terresrial mammals	General	Estimates from wetland sediments	Moderate
		Only earthworms used for dietary exposure from prey	High
		Bioavailbitiy of metals	Moderate
	Arsenic - low	TRV - Arsenic	Moderate
Fish	No COPCs with Risk	Site-specific tissue concentrations	High
Invertebrates		Bioavailbitiy of metals	High

[1] Each COPC contributing risk is listed, a relative indication of risk to populations.
Low = majority of habitat exceeds lower Threshold Effects Level based on NOAEL RTVs
High = Majority of habitat exceeds upper Threshold Effects Level based on LOAEL RTVs

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TABLE 4-276

HAZARD QUOTIENT COMPARISON FOR MUSKRAT VARYING PLANT TISSUE COPC CONCENTRATIONS

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT												
			Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Vanadium
18	Wetland	1	3.7		367	1.0		2.8	2.0	962	2.7	3.5	2.9	1.6	5.9
18*	Wetland	1	4.4		133			4.2	1.2	465	1.0		1.1		6.8
20	Wetland	1	5.7		145	1.1	1.2	2.4	2.4	527	5.8	3.0	1.6	2.1	9.8
20*	Wetland	1	5.1		143			2.1	1.1	305	1.2		1.6		5.8
21	Wetland	1	3.5		91	1.6	1.3	3.9	1.2	383	4.0		7.4		6.8
21*	Wetland	1	2.7		39			2.0		201	1.1		5.4	1.2	3.9
23	Wetland	Reference	2.1		10					267	2.5				7.0
23*	Wetland	Reference	1.4		14					206		1.1			3.1
% of OU3 stations (non-reference) with HQ>1			32	0	32	11	11	21	16	32	26	11	21	11	32

* Second row calculated with site-specific plant tissue data, and the first row were calculated using models with uptake factors and site sediment data to estimate plant tissue concentrations. Note that Station 23 utilized mean reference wetland sediment data during calculations, but site-specific plant tissue data was only for the actual station.

TABLE 4-277

COMPARISON OF ARITHMETIC AND GEOMETRIC MEANS FOR SELECTED METALS FOR MUSKRAT

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	ARITHMETIC AND GEOMETRIC STATION MEANS* (mg/kg)			
			Arsenic	Copper	Lead	Mercury
Reference	Pond		10		214	
Reference*	Pond		7.4		126	
02	Pond	6	19			
02*	Pond	6	11			
04	Pond	6	86			
04*	Pond	6	70			
06	Pond	4				1.4
06*	Pond	4				1.0
07	Pond	3				1.4
07*	Pond	3				0.9
13	Wetland	1	1267			
13*	Wetland	1	396			
BW	Wetland	1		899		6.6
BW*	Wetland	1		792		3.5
CB-01	Wetland	2		389		1.5
CB-01*	Wetland	2		240		0.9
CB-02	Wetland	2	27			
CB-02*	Wetland	2	22			
CB-03	Wetland	2	272			
CB-03*	Wetland	2	109			
CB-04	Wetland	2	112			
CB-04*	Wetland	2	85			
JY	Wetland	1	145			
JY*	Wetland	1	88			
LP	River	3	70			
LP*	River	3	35			
TT-30	River	2				24.9
TT-30*	River	2				7.4
WG	Wetland	1	136			
WG*	Wetland	1	46			
WH	Wetland	1	114			
WH*	Wetland	1	44			

* Second row provides the station geometric mean; first row provides the station arithmetic mean

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TABLE 4-278
HAZARD QUOTIENT COMPARISON FOR MUSKRAT VARYING SEDIMENT COPC CONCENTRATIONS

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	ARITHMETIC AND GEOMETRIC MEANS*			
			Arsenic	Copper	Lead	Mercury
Reference	Pond		5		1.6	
Reference*	Pond		4		0.9	
02	Pond	6	10			
02*	Pond	6	6			
04	Pond	6	44			
04*	Pond	6	36			
06	Pond	4				1.1
06*	Pond	4				0.8
07	Pond	3				1.1
07*	Pond	3				0.7
13	Wetland	1	669			
13*	Wetland	1	211			
BW	Wetland	1		2.2		5.1
BW*	Wetland	1		1.9		2.7
CB-01	Wetland	2		1.0		1.2
CB-01*	Wetland	2		0.7		0.8
CB-02	Wetland	2	15			
CB-02*	Wetland	2	13			
CB-03	Wetland	2	139			
CB-03*	Wetland	2	57			
CB-04	Wetland	2	58			
CB-04*	Wetland	2	45			
JY	Wetland	1	75			
JY*	Wetland	1	46			
LP	River	3	36			
LP*	River	3	18			
TT-30	River	2				19.4
TT-30*	River	2				5.7
WG	Wetland	1	71			
WG*	Wetland	1	25			
WH	Wetland	1	60			
WH*	Wetland	1	24			

* Second row calculated with sediment station geometric mean data and the first row were calculated using sediment station arithmetic mean data. Pairs of data shown only for lognormal data sets.

Indicates that the calculated HQ was less than 1 when calculated with the geometric mean, but greater than 1 when calculated with the arithmetic mean

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TABLE 4-279

COMPARISON OF GEOMETRIC AND ARITHMETIC HAZARD QUOTIENTS AND HAZARD INDICES FOR BENTHIC INVERTEBRATES

FOR BENTHIC INVERTEBRATES BY REACH

WELLS G&H SUPERFUND SITE OU3

Chemical of Potential Concern	Reach 1		Reach 2		Reach 3		Reach 4		Reach 5		Reach 6		Pond Reference		River Reference		Wetland Reference	
	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A
Inorganics																		
Arsenic	3.9	13.3	1.6	3.6	1.3	2.1							0.3	0.4				
Cadmium													0.0	0.1	0.0	0.2		
Chromium	4.6	18.5	1.2	3.0	0.8	1.4	2.2	2.4	0.4	0.6	0.8	2.5	0.3	0.4			0.5	1.2
Copper			1.1	2.1	0.99	1.8			0.3	0.4	1.2	2.9			0.2	0.7		
Lead					0.4	0.8			0.6	0.9	0.7	1.7	0.6	0.9	0.2	0.4		
Mercury	0.5	1.6	0.2	0.96	0.3	0.5	0.5	0.6	0.1	0.2	0.1	0.5			0.0	0.1	0.0	0.1
Zinc			0.5	0.9											0.1	0.2		

0.0 - indicates the HQ was <0.05

Boxed - HQ >10

G - HQ based on Geometric Mean, calculated for log-narmally distributed data, only.

A - HQ based on Arithmetic Mean (from Tables 4-261 to 4-263)

Indicates that the calculated HQ was less than 1 when calculated with the geometric mean, but greater than 1 when calculated with the arithmetic mean

TABLE 4-280
HAZARD QUOTIENT SUMMARY FOR MUSKRAT - MAXIMUM EXPOSURE CASE

WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	Arsenic	Chromium	Copper	Lead	Mercury
	Pond	Reference	9			3.7	
	Wetland	Reference	17			3.9	
	River	Reference	13			1.7	
1	Pond	6	86		3	3	
2	Pond	6	29			2.7	
3	Pond	6	40			2.3	
4	Pond	6	61		1.1	4.6	
5	River	5	11			4.3	
6	River	4	59			3.3	2.5
7	River	3	42			2.6	1.9
8	River	2	16				
9	River	2	19				
10	River	1	728	3.8	5.4	6.1	14.6
11	River	1	242	1.5	1.1	4.5	2.9
12	River	1	1620	1.7	3.3	6.5	34.8
13	Wetland	1	2131	1.2	4.2	8.6	10.8
14	River	1	40				1.1
15	Wetland	1	100		1.2	1.1	
16	River	2	8				
18	Wetland	1	561	4.9	2.7	3.8	4.5
19	Wetland	1	2151	3.8	3.1	4.5	4.8
20	Wetland	1	165	3.0	2.6	9.0	2.6
21	Wetland	1	128	8.2	1.5	5.4	14.1
AM	River	2	63			1.1	1.5
AS	River	3	62	1.5	1.4	5.0	2.4
BW	Wetland	1	1537	3.3	3.6	6.5	12.1
CB-01	Wetland	2	31		1.9	3.3	2.3
CB-02	Wetland	2	22			1.8	
CB-03	Wetland	2	302	1.3	1.0	2.1	1.9
CB-04	Wetland	2	93			2.1	
CB-06	Wetland	2	72			1.4	
JY	Wetland	1	145	1.9	1.3	5.5	1.4
KFSE	River	2	28				
LP	River	3	76			1.1	
NRSE	Wetland	1	111			1.7	3.5
TT-28	River	1	501	6.9	3.2	4.9	3.9
TT-29	River	1	533	8.9	3.2	4.9	10.3
TT-30	River	2	534	7.8	7.6	4.8	69.2
TT-31	Wetland	2	17			2.5	1.4
TT-32	River	2	205	1.1	1.1	2.2	3.3
TT-33	River	2	147	3.2	1.3	2.1	4.2
UF	Pond	6	64		1.4	6.4	1.6
WG	Wetland	1	135	1.5	1.6	3.9	2.3
WH	Wetland	1	217	1.4	1.4	13.9	
WS	River	1	117	1.2	1.1	2.8	1.1
WW	Wetland	1	30	25.1	1.1	2.6	
% of OU3 stations (non-reference) with HQ>1			100	49	60	88	63

[1] A blank cell indicates that the HQ was less than 1.0

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TABLE 4-281
HAZARD QUOTIENT SUMMARY FOR MUSKRAT, USING LOAEL[1] TRVS[2]
MAXIMUM EXPOSURE CASE
WELLS G&H SUPERFUND SITE OU3

Station	Habitat Type	Aberjona River Reach	COPC HAZARD QUOTIENT[3]				
			Arsenic	Chromium	Copper	Lead	Mercury
Reference	Pond						
Reference	Wetland						
Reference	River						
1	Pond	6	1.2		2.3		
2	Pond	6					
3	Pond	6					
4	Pond	6					
5	River	5					
6	River	4					
7	River	3					
8	River	2					
9	River	2					
10	River	1	9.9		4.2		2.9
11	River	1	3.3				
12	River	1	22.1		2.6		7.0
13	Wetland	1	29.1		3.2		2.2
14	River	1					
15	Wetland	1	1.4				
16	River	2					
18	Wetland	1	7.7	1.1	2.1		
19	Wetland	1	29.3		2.4		
20	Wetland	1	2.2		2.0		
21	Wetland	1	1.7	1.8	1.2		2.8
AM	River	2					
AS	River	3			1.1		
BW	Wetland	1	21.0		2.8		2.4
CB-01	Wetland	2			1.4		
CB-02	Wetland	2					
CB-03	Wetland	2	4.1				
CB-04	Wetland	2	1.3				
CB-06	Wetland	2					
JY	Wetland	1	2.0				
KFSE	River	2					
LP	River	3					
NRSE	Wetland	1	1.5				
TT-28	River	1	6.8	1.5	2.5		
TT-29	River	1	7.3	2.0	2.5		2.1
TT-30	River	2	7.3	1.8	5.9		13.8
TT-31	Wetland	2					
TT-32	River	2	2.8				
TT-33	River	2	2.0				
UF	Pond	6					
WG	Wetland	1	1.8		1.2		
WH	Wetland	1	3.0		1.1	1.4	
WS	River	1	1.6				
WW	Wetland	1		5.7			
% of OU3 stations (non-reference) with HQ>1			53	14	37	2	16

[1] LOAEL: Lowest Observed Adverse Effect Level

[2] TRV: Toxicity Reference Value

[3] A blank cell indicates that the HQ was less than 1.0

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TABLE 5-1
SUMMARY OF RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
NR	Current (wader)	RME	3E-05	7E-01		N/A
		CT	7E-06	4E-01		
	Future (wader)	RME	7E-05	1E+00		N/A
		CT	7E-06	4E-01		
14	Current (wader)	RME	6E-06	1E-01		N/A
		CT	1E-06	6E-02		
	Future (wader)	RME	1E-05	3E-01		N/A
		CT	1E-06	6E-02		
22/TT-22	Current (wader)	RME	5E-06	5E-01		N/A
		CT	1E-06	1E-01		
	Future (wader)	RME	2E-05	2E+00		N/A
		CT	1E-06	1E-01		
13/TT-27	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	**7E-04**	**1E+01**	sediment	(C) - As; benzo(a)pyrene
		CT	5E-05	**3E+00**		(NC) - As
WH	Current (wader)	RME	1E-04	**2E+00**	sediment	(NC) - As
		CT	2E-05	1E+00		
	Future (wader)	RME	**4E-04**	**7E+00**	sediment	(C) - As; benzo(a)pyrene
		CT	2E-05	1E+00		(NC) - As
NT-1	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	**5E-04**	**9E+00**	sediment	(C) - As; benzo(a)pyrene
		CT	3E-05	**2E+00**		(NC) - As
NT-2	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	**3E-04**	**6E+00**	sediment	(C) - As; benzo(a)pyrene
		CT	2E-05	1E+00		(NC) - As
NT-3	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	1E-04	**2E+00**	sediment	(NC) - As
		CT	6E-06	4E-01		
WG	Current (wader)	RME	2E-05	4E-01		N/A
		CT	3E-06	2E-01		
	Future (wader)	RME	5E-05	1E+00		N/A
		CT	3E-06	2E-01		
WW	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	1E-05	7E-01		N/A
		CT	5E-07	1E-01		
JY	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	5E-05	2E+00		N/A
		CT	4E-06	4E-01		

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TABLE 5-1
SUMMARY OF RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
WS/WSS	Current (wader)	RME	6E-05	2E+00		N/A
		CT	1E-05	8E-01		
	Future (wader)	RME	6E-05	2E+00		N/A
		CT	1E-05	8E-01		
TT-30	Current (wader)	RME	7E-05	2E+00		N/A
		CT	1E-05	1E+00		
	Future (wader)	RME	7E-05	2E+00		N/A
		CT	1E-05	1E+00		
TT-31	Current (wader)	RME	NE	NE		N/A
		CT	NE	NE		
	Future (wader)	RME	6E-06	3E-01		N/A
		CT	2E-07	4E-02		
CB-01	Current (wader)	RME	1E-05	7E-01		N/A
		CT	2E-06	3E-01		
	Future (wader)	RME	1E-05	7E-01		N/A
		CT	2E-06	3E-01		
CB-02	Current (wader)	RME	1E-05	3E-01		N/A
		CT	2E-06	1E-01		
	Future (wader)	RME	1E-05	3E-01		N/A
		CT	2E-06	1E-01		N/A
CB-03	Current (wader)	RME	1E-04	**3E+00**	sediment	(C) - As
		CT	2E-05	1E+00		(NC) - As
	Future (wader)	RME	1E-04	**3E+00**	sediment	(NC) - As
		CT	2E-05	1E+00		
CB-04	Current (wader)	RME	5E-05	1E+00		N/A
		CT	7E-06	5E-01		
	Future (wader)	RME	5E-05	1E+00		N/A
		CT	7E-06	5E-01		
CB-05	Current (wader)	RME	2E-05	6E-01		N/A
		CT	1E-05	5E-01		
	Future (wader)	RME	2E-05	6E-01		N/A
		CT	1E-05	5E-01		
CB-06	Current (wader)	RME	3E-05	1E+00		N/A
		CT	5E-06	5E-01		
	Future (wader)	RME	3E-05	1E+00		N/A
		CT	5E-06	5E-01		
CB-07	Current (wader)	RME	1E-05	3E-01		N/A
		CT	3E-06	2E-01		
	Future (wader)	RME	1E-05	3E-01		N/A
		CT	3E-06	2E-01		
16/TT-33	Current (wader)	RME	4E-05	1E+00		N/A
		CT	3E-06	2E-01		
	Future (wader)	RME	4E-05	1E+00		N/A
		CT	3E-06	2E-01		

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TABLE 5-1
SUMMARY OF RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
09	Current (wader)	RME	9E-06	3E-01		N/A
		CT	6E-07	4E-02		
	Future (wader)	RME	9E-06	3E-01		N/A
		CT	6E-07	4E-02		
DA	Current (wader)	RME	6E-05	2E+00		N/A
		CT	4E-06	3E-01		
	Future (wader)	RME	6E-05	2E+00		N/A
		CT	4E-06	3E-01		
AM	Current (wader)	RME	8E-06	2E-01		N/A
		CT	2E-06	1E-01		
	Future (wader)	RME	8E-06	2E-01		N/A
		CT	2E-06	1E-01		
KF	Current (wader)	RME	2E-05	6E-01		N/A
		CT	2E-06	1E-01		
	Future (wader)	RME	2E-05	6E-01		N/A
		CT	2E-06	1E-01		
08	Current (wader)	RME	9E-06	2E-01		N/A
		CT	4E-07	3E-02		
	Future (wader)	RME	9E-06	2E-01		N/A
		CT	4E-07	3E-02		
07/DP	Current (wader)	RME	5E-05	1E+00		N/A
		CT	3E-06	2E-01		
	Future (wader)	RME	5E-05	1E+00		N/A
		CT	3E-06	2E-01		
LP	Current (wader)	RME	3E-05	6E-01		N/A
		CT	2E-06	1E-01		
	Future (wader)	RME	3E-05	6E-01		N/A
		CT	2E-06	1E-01		
AS	Current (wader)	RME	7E-06	2E-01		N/A
		CT	1E-06	1E-01		
	Future (wader)	RME	2E-05	7E-01		N/A
		CT	1E-06	1E-01		
06	Current (wader)	RME	N/A	1E-02		N/A
		CT	N/A	2E-03		
	Future (wader)	RME	N/A	1E-02		N/A
		CT	N/A	2E-03		
05	Current (wader)	RME	1E-05	2E-01		N/A
		CT	2E-07	2E-02		
	Future (wader)	RME	1E-05	2E-01		N/A
		CT	2E-07	2E-02		
AJRW	Current (wader)	RME	3E-05	5E-01		N/A
		CT	2E-06	1E-01		
	Future (wader)	RME	3E-05	5E-01		N/A
		CT	2E-06	1E-01		

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TABLE 5-1
SUMMARY OF RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
04	Current (wader)	RME	7E-08	9E-03		N/A
		CT	3E-09	9E-04		
	Future (wader)	RME	7E-08	9E-03		N/A
		CT	3E-09	9E-04		
03	Current (wader)	RME	2E-05	4E-01		N/A
		CT	5E-07	4E-02		
	Future (wader)	RME	2E-05	4E-01		N/A
		CT	5E-07	4E-02		
02	Current (wader)	RME	7E-08	9E-03		N/A
		CT	3E-09	9E-04		
	Future (wader)	RME	7E-08	9E-03		N/A
		CT	3E-09	9E-04		
01	Current (swimmer)	RME	2E-06	6E-02		N/A
		CT	1E-07	1E-02		
	Future (swimmer)	RME	2E-06	6E-02		N/A
		CT	1E-07	1E-02		
Reach 3	Current Angler	RME	9E-06	9E-01		N/A
		CT	7E-07	3E-01		
	Future Angler	RME	9E-06	9E-01		N/A
		CT	7E-07	3E-01		
Reach 4/5	Current Angler	RME	3E-05	2E+00		N/A
		CT	2E-06	7E-01		
	Future Angler	RME	3E-05	2E+00		N/A
		CT	2E-06	7E-01		
Reach 6	Current Angler	RME	3E-05	1E+00		N/A
		CT	2E-06	5E-01		
	Future Angler	RME	3E-05	1E+00		N/A
		CT	2E-06	5E-01		

Notes
Bolded values exceed a cancer risk of 1E-04 or a target organ HI of 1.

HI - Hazard Index
RME - Reasonable Maximum Exposure
CT - Central Tendency Exposure
As - Arsenic
(C) - Carcinogenic Risk
(NC) - Noncarcinogenic Risk
NE - Not Evaluated
N/A - Not Applicable

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TABLE 5-2
SUMMARY OF SURFACE WATER RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks		Total Noncancer Risks	
			1995	2001-2002*	1995	2001-2002*
NR	Current (wader)	RME	2E-07	1E-07	3E-02	8E-03
		CT	3E-08	2E-08	1E-02	4E-03
	Future (wader)	RME	4E-07	2E-07	6E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
14	Current (wader)	RME	2E-07	1E-07	3E-02	8E-03
		CT	3E-08	2E-08	1E-02	4E-03
	Future (wader)	RME	4E-07	2E-07	6E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
22/TT-22	Current (wader)	RME	2E-07	1E-07	3E-02	8E-03
		CT	3E-08	2E-08	1E-02	4E-03
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
13/TT-27	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
WH	Current (wader)	RME	2E-07	1E-07	3E-02	8E-03
		CT	3E-08	2E-08	1E-02	4E-03
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
NT-1	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
NT-2	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
NT-3	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
WG	Current (wader)	RME	2E-07	1E-07	3E-02	8E-03
		CT	3E-08	2E-08	1E-02	4E-03
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
WW	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03
JY	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	7E-07	3E-07	8E-02	2E-02
		CT	3E-08	2E-08	1E-02	4E-03

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TABLE 5-2
SUMMARY OF SURFACE WATER RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks		Total Noncancer Risks	
			1995	2001-2002*	1995	2001-2002*
WS/WSS	Current (wader)	RME	9E-07	4E-07	1E-01	3E-02
		CT	1E-07	5E-08	4E-02	1E-02
	Future (wader)	RME	9E-07	4E-07	1E-01	3E-02
		CT	1E-07	5E-08	4E-02	1E-02
TT-30	Current (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
TT-31	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
CB-01	Current (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
	Future (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
CB-02	Current (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
	Future (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
CB-03	Current (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
	Future (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
CB-04	Current (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
	Future (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
CB-05	Current (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
	Future (wader)	RME	NE	NE	NE	NE
		CT	NE	NE	NE	NE
CB-06	Current (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
	Future (wader)	RME	6E-07	4E-07	5E-02	3E-02
		CT	8E-08	5E-08	2E-02	1E-02
CB-07	Current (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
16/TT-33	Current (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03

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TABLE 5-2
SUMMARY OF SURFACE WATER RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks		Total Noncancer Risks	
			1995	2001-2002*	1995	2001-2002*
09	Current (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
DA	Current (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	5E-07	3E-07	3E-02	2E-02
		CT	3E-08	2E-08	5E-03	4E-03
AM	Current (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
	Future (wader)	RME	2E-07	1E-07	1E-02	8E-03
		CT	3E-08	2E-08	5E-03	4E-03
KF	Current (wader)	RME	1E-07	3E-07	8E-03	2E-02
		CT	5E-09	2E-08	1E-03	4E-03
	Future (wader)	RME	1E-07	3E-07	8E-03	2E-02
		CT	5E-09	2E-08	1E-03	4E-03
08	Current (wader)	RME	1E-07	3E-07	8E-03	2E-02
		CT	5E-09	2E-08	1E-03	4E-03
	Future (wader)	RME	1E-07	3E-07	8E-03	2E-02
		CT	5E-09	2E-08	1E-03	4E-03
07/DP	Current (wader)	RME	N/A	2E-07	1E-02	2E-02
		CT	N/A	1E-08	2E-03	3E-03
	Future (wader)	RME	N/A	2E-07	1E-02	2E-02
		CT	N/A	1E-08	2E-03	3E-03
LP	Current (wader)	RME	N/A	2E-07	1E-02	2E-02
		CT	N/A	1E-08	2E-03	3E-03
	Future (wader)	RME	N/A	2E-07	1E-02	2E-02
		CT	N/A	1E-08	2E-03	3E-03
AS	Current (wader)	RME	N/A	7E-08	4E-03	6E-03
		CT	N/A	1E-08	2E-03	3E-03
	Future (wader)	RME	N/A	2E-07	1E-02	2E-02
		CT	N/A	1E-08	2E-03	3E-03
06	Current (wader)	RME	N/A	9E-08	1E-02	7E-03
		CT	N/A	5E-09	2E-03	1E-03
	Future (wader)	RME	N/A	9E-08	1E-02	7E-03
		CT	N/A	5E-09	2E-03	1E-03
05	Current (wader)	RME	9E-07	6E-08	6E-03	5E-03
		CT	6E-08	3E-09	1E-03	8E-04
	Future (wader)	RME	9E-07	6E-08	6E-03	5E-03
		CT	6E-08	3E-09	1E-03	8E-04

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TABLE 5-2
SUMMARY OF SURFACE WATER RECEPTOR RISKS - RECREATIONAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor (Recreational User)	RME or CT	Total Cancer Risks		Total Noncancer Risks	
			1995	2001-2002*	1995	2001-2002*
AJRW	Current (wader)	RME	9E-07	6E-08	6E-03	5E-03
		CT	6E-08	3E-09	1E-03	8E-04
	Future (wader)	RME	9E-07	6E-08	6E-03	5E-03
		CT	6E-08	3E-09	1E-03	8E-04
04	Current (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
	Future (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
03	Current (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
	Future (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
02	Current (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
	Future (wader)	RME	7E-08	4E-08	9E-03	1E-03
		CT	3E-09	2E-09	9E-04	2E-04
01	Current (swimmer)	RME	3E-07	2E-07	8E-03	3E-03
		CT	7E-09	4E-09	5E-04	2E-04
	Future (swimmer)	RME	3E-07	2E-07	8E-03	3E-03
		CT	7E-09	4E-09	5E-04	2E-04

Notes

Bolded values exceed a cancer risk of 1E-04 or a target organ HI of 1.

* Refer to Section 3.2.2.1 for discussion of the assignment of surface water samples to exposure stations.

HI - Hazard Index
RME - Reasonable Maximum Exposure
CT - Central Tendency Exposure

(C) - Carcinogenic Risk
(NC) - Noncarcinogenic Risk
NE - Not Evaluated
N/A - Not Applicable

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TABLE 5-3
SUMMARY OF RECEPTOR RISKS - SEDIMENT CORES
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
SC05	Future Dredger	RME	3E-05	**3E+00**	sediment	(NC) - As
		CT	5E-06	1E+00		
SC06	Future Dredger	RME	6E-05	**5E+00**	sediment	(NC) - As
		CT	7E-06	1E+00		
SC07	Future Dredger	RME	1E-05	1E+00		N/A
		CT	3E-06	7E-01		
SC08	Future Dredger	RME	4E-05	**4E+00**	sediment	(NC) - As
		CT	3E-06	5E-01		
SC09	Future Dredger	RME	3E-06	3E-01		N/A
		CT	4E-07	7E-02		
SC10	Future Dredger	RME	2E-06	2E-01		N/A
		CT	5E-07	8E-02		
SC11	Future Dredger	RME	4E-06	5E-01		N/A
		CT	9E-07	2E-01		
SC12	Future Dredger	RME	4E-06	6E-01		N/A
		CT	1E-06	3E-01		
SC13	Future Dredger	RME	4E-06	5E-01		N/A
		CT	1E-06	2E-01		

Notes
Bolded values exceed a cancer risk of 1E-04 or a target organ HI of 1.

HI - Hazard Index
RME - Reasonable Maximum Exposure
CT - Central Tendency Exposure
As - Arsenic
(C) - Carcinogenic Risk
(NC) - Noncarcinogenic Risk
NE - Not Evaluated
N/A - Not Applicable

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TABLE 5-4
SUMMARY OF RECEPTOR RISKS - RESIDENTIAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Station	Scenario/Receptor	RME or CT	Total Cancer Risks	Total Noncancer Risks	Media > 1E-04 or HI > 1	Major contributors to risk (> 1E-06, HI > 1)
WS/WSS	Current/Future Area Resident	RME	1E-05	5E-01		N/A
		CT	8E-06	5E-01		
CB-05	Current/Future Area Resident	RME	7E-05	2E+00		N/A
		CT	5E-05	2E+00		
KF	Current/Future Area Resident	RME	5E-05	1E+00		N/A
		CT	9E-06	8E-01		
07/DP	Current/Future Area Resident	RME	5E-05	2E+00		N/A
		CT	9E-06	1E+00		
AJRW	Current/Future Area Resident	RME	7E-05	2E+00		N/A
		CT	1E-05	9E-01		
SW-05	Current/Future Area Resident	RME	1E-07	1E-02		N/A
		CT	1E-08	3E-03		
SW-06	Current/Future Area Resident	RME	2E-07	2E-02		N/A
		CT	1E-08	4E-03		
SW-07	Current/Future Area Resident	RME	1E-07	8E-03		N/A
		CT	8E-09	2E-03		
SW-08	Current/Future Area Resident	RME	2E-07	4E-02		N/A
		CT	2E-08	9E-03		
SW-09	Current/Future Area Resident	RME	3E-08	9E-04		N/A
		CT	2E-09	2E-04		
SW-10	Current/Future Area Resident	RME	1E-08	2E-04		N/A
		CT	1E-09	5E-05		

Notes
Bolded values exceed a cancer risk of 1E-04 or a target organ HI of 1.

HI - Hazard Index
RME - Reasonable Maximum Exposure
CT - Central Tendency Exposure
As - Arsenic
(C) - Carcinogenic Risk
(NC) - Noncarcinogenic Risk
NE - Not Evaluated
N/A - Not Applicable

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TABLE 5-5
SUMMARY OF RECEPTOR RISKS
ECOLOGICAL RISK ASSESSMENT
WELLS G&H SUPERFUND SITE OU3

Assessment Endpoints	Receptor Species	Exposure Area	Risk Summary
Sustainability (survival, growth, reproduction) of local populations of populations of piscivorus birds	green heron	- site-wide	No risk from dietary exposure from any COPC
Sustainability (survival, growth, reproduction) of local populations of waterfowl	mallard duck	- 38-acre wetland[1] - site-wide	Chromium - Low risk to populations, 4 stations in reach 1, 1 in reach 2 above upper TEL[2] Lead - Low risk to populations, 3 stations in reach 1 above upper TEL Mercury - Low risk to populations, 1 station in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of omnivorous, semi-aquatic mammals	muskrat	- by station	Arsenic - High risk to populations in reach 1, upper TEL = 150 mg/kg in sediment Chromium - Low risk to populations, 3 stations in reach 1 above upper TEL Copper - Low risk to populations, 9 stations in reach 1, 1 in reach 2 above upper TEL Lead - Low risk to populations, 1 station in reach 1 above upper TEL Mercury - Low risk to populations, 5 in reach 1, 1 in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of small terrestrial mammals	shrew	- by station	Arsenic - Low risk to populations, 2 stations in reach 1, 1 in reach 2 above upper TEL
Sustainability (survival, growth, reproduction) of local populations of predatory fish	largemouth bass	- by reach	No risk from exposure to any COPCs
Sustainability (survival, growth, reproduction) of local populations of bottom-feeding fish	white sucker	- by reach	No risk from exposure to any COPCs
Sustainability (survival, growth, reproduction) of local populations of small forage fish	pumpkinseed	- by reach	No risk from exposure to any COPCs
Sustainability (survival, growth, reproduction) of local populations of benthic invertebrates	sediment benchmarks	- by reach	Exceedences of SELs[3] for arsenic, chromium, copper, lead, mercury and zinc. Highest risk from arsenic and chromium in reach 1
	crayfish tissue	- by reach	No risk to crayfish from exposure to any COPCs
	H. azteca & *C. tentans*	- 15 triad stations	Evidence for chronic toxicity associated with arsenic concentration in sediment above TEL of 220 mg/kg
	benthic community composition	- 15 triad stations	Evidence for community impairment associated with arsenic concentration in sediment above TEL of 220 mg/kg

[1] The 38-acre wetland corresponds to the area of Reach 1
[2] TEL - Threshold Effects Level
[3] SEL - Severe Effects Level