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APPENDIX B

LANDFILL SIZE AND WASTE VOLUME DATA

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Table B.1 On-Site Landfill Source Input Data

Onsite Landfill No.	LF AREA (m^2)	Waste Unit Depth (m)	1992 Quantity MT	Specific Gravity	20-year Waste vol. (m^3)	Co-disposed 20-year Vol. (m^3)	WS type *	WS No.	Waste Stream
1	202350	0.30	164	1.2	2733.33	4503.24	L	2	OFF-SPEC PRODUCT AND FINES FROM THERMAL PROCESS
1	202350	0.30	100	1.13	1769.91	4503.24	L	13	CATALYST FROM HYDROTREATING [1]
2	28329	0.91	43.8	2.35	372.77	3400.11	L	1	CATALYST FROM CLAUS UNIT
2	28329	0.91	2.8	1.2	46.67	3400.11	L	2	OFF-SPEC PRODUCT AND FINES FROM THERMAL PROCESS
2	28329	0.91	45	1.2	750.00	3400.11	L	9	HF ALKYLATION SLUDGE
2	28329	0.91	10.6	1.24	170.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	10.6	1.24	170.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	10.6	1.24	170.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	10.6	1.24	170.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	35.4	1.24	570.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	35.4	1.24	570.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	10.6	1.24	170.97	3400.11	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
2	28329	0.91	0.5	1.36	7.35	3400.11	S	20	OFF-SPEC SULFUR
2	28329	0.91	0.5	1.36	7.35	3400.11	S	20	OFF-SPEC SULFUR
2	28329	0.91	14.5	1.323	219.20	3400.11	L	12	CATALYST FROM HYDROREFINING
3	1618.8	2.44	619	1.5	8253.33	8742.81	L	4	CSO SLUDGE
3	1618.8	2.44	11	1.13	194.69	8742.81	L	13	CATALYST FROM HYDROTREATING [1]
3	1618.8	2.44	14	1.323	211.64	8742.81	L	12	CATALYST FROM HYDROREFINING [1]
3	1618.8	2.44	5.5	1.323	83.14	8742.81	L	12	CATALYST FROM HYDROREFINING
4	145692	27.43	100945	1.71	1180643.27	1182740.53	L	7	FCC Cat and Fines
4	145692	27.43	28	1.13	495.58	1182740.53	L	13	CATALYST FROM HYDROTREATING
4	145692	27.43	31	1.13	548.67	1182740.53	L	13	CATALYST FROM HYDROTREATING
4	145692	27.43	57	1.323	861.68	1182740.53	L	12	CATALYST FROM HYDROREFINING
4	145692	27.43	15	1.568	191.33	1182740.53	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)
5	14771.55	3.65	30	1.13	530.97	34838.16	L	13	CATALYST FROM HYDROTREATING
5	14771.55	3.65	122	1.71	1426.90	34838.16	L	7	FCC CATALYST
5	14771.55	3.65	2270	1.71	26549.71	34838.16	L	7	FCC FINES
5	14771.55	0.91	116	1.24	1870.97	34838.16	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
5	14771.55	0.91	116	1.65	3.88	34838.16	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
5	14771.55	0.91	247	1.3	3800.00	34838.16	S	22	TREATING CLAY FROM CLAY FILTERING
5	14771.55	0.91	34	1.3	523.08	34838.16	S	22	TREATING CLAY FROM CLAY FILTERING
5	14771.55	0.91	10.4	1.568	132.65	34838.16	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)

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Table B.1 On-Site Landfill Source Input Data

Onsite Landfill No.	LF AREA (m^2)	Waste Unit Depth (m)	1992 Quantity MT	Specific Gravity	20-year Waste vol. (m^3)	Co-disposed 20-year Vol. (m^3)	WS type *	WS No.	Waste Stream
6	32376	5.31	9.5	1.13	168.14	6292.23	L	13	CATALYST FROM HYDROTREATING
6	32376	5.31	1	1.36	14.71	6292.23	S	20	OFF-SPEC SULFUR
6	32376	5.31	12	1.65	145.45	6292.23	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
6	32376	5.31	12	1.65	145.45	6292.23	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
6	32376	5.31	342	1.3	5261.54	6292.23	S	22	TREATING CLAY FROM CLAY FILTERING
6	32376	5.31	13.9	1.3	213.85	6292.23	S	22	TREATING CLAY FROM CLAY FILTERING
6	32376	5.31	6.6	1.5	88.00	6292.23	L	23	UNLEADED GASOLINE TANK SLUDGE
6	32376	5.31	8.8	1.2	146.67	6292.23	S	24	DIMERSOL CATALYST
6	32376	5.31	8.5	1.568	108.42	6292.23	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)
7	12141	6.10	0.05	1.65	0.61	365.54	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
7	12141	6.10	0.05	1.65	0.61	365.54	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
7	12141	6.10	24.1	1.323	364.32	365.54	L	12	CATALYST FROM HYDROREFINING
8	14973.9	4.57	1.7	1.13	30.09	2068.27	L	13	CATALYST FROM HYDROTREATING
8	14973.9	4.57	0.5	2.35	4.26	2068.27	L	1	CATALYST FROM CLAUS UNIT
8	14973.9	4.57	89	0.96	1854.17	2068.27	S	15	PHOSPORIC-ACID CATALYST
8	14973.9	4.57	14.5	1.65	175.76	2068.27	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
8	14973.9	4.57	0.3	1.5	4.00	2068.27	L	23	UNLEADED GASOLINE TANK SLUDGE
9	36423	2.44	9	1.13	159.29	1314.29	L	13	CATALYST FROM HYDROTREATING
9	36423	2.44	19	1.13	336.28	1314.29	L	13	CATALYST FROM HYDROTREATING
9	36423	2.44	35	1.71	409.36	1314.29	L	7	FCC CATALYST
9	36423	2.44	35	1.71	409.36	1314.29	L	7	FCC FINES
10	8094	2.44	3.3	1.13	58.41	1286.48	L	13	CATALYST FROM HYDROTREATING
10	8094	2.44	105	1.71	1228.07	1286.48	L	7	FCC FINES
11	24930	3.66	108.4	1.13	1918.58	15587.45	L	13	CATALYST FROM HYDROTREATING
11	24930	3.66	60	1.13	1061.95	15587.45	L	13	CATALYST FROM HYDROTREATING
11	24930	3.66	108.4	1.13	1918.58	15587.45	L	13	CATALYST FROM HYDROTREATING
11	24930	3.66	54	1.13	955.75	15587.45	L	13	CATALYST FROM HYDROTREATING
11	24930	3.66	36.5	1.71	426.90	15587.45	L	7	FCC CATALYST
11	24930	3.66	36.5	1.71	426.90	15587.45	L	7	FCC CATALYST
11	24930	3.66	33.6	1.24	541.94	15587.45	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
11	24930	3.66	32.4	1.24	522.58	15587.45	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)

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Table B.1 On-Site Landfill Source Input Data

Onsite Landfill No.	LF AREA (m^2)	Waste Unit Depth (m)	1992 Quantity MT	Specific Gravity	20-year Waste vol. (m^3)	Co-disposed 20-year Vol. (m^3)	WS type *	WS No.	Waste Stream
11	24930	3.66	34	1.2	566.67	15587.45	S	14	ISOMERIZATION CLAY
11	24930	3.66	145	0.96	3020.83	15587.45	S	15	PHOSPORIC-ACID CATALYST
11	24930	3.66	0	1.36	0.00	15587.45	S	20	OFF-SPEC SULFUR
11	24930	3.66	93	1.3	1430.77	15587.45	S	22	TREATING CLAY FROM CLAY FILTERING
11	24930	3.66	84.4	1.3	1298.46	15587.45	S	22	TREATING CLAY FROM CLAY FILTERING
11	24930	3.66	2.5	1.3	38.46	15587.45	S	22	TREATING CLAY FROM CLAY FILTERING
11	24930	3.66	12.3	1.3	189.23	15587.45	S	22	TREATING CLAY FROM CLAY FILTERING
11	24930	3.66	84	1.323	1269.84	15587.45	L	12	CATALYST FROM HYDROREFINING
12	121410	15.25	60	2.35	510.64	80540.99	L	1	CATALYST FROM CLAUS UNIT
12	121410	15.25	60	1.5	800.00	80540.99	L	4	CSO SLUDGE
12	121410	15.25	1125	1.71	13157.89	80540.99	L	7	FCC CATALYST
12	121410	15.25	27	1.71	315.79	80540.99	L	7	FCC CATALYST
12	121410	15.25	1272.7	1.71	14885.38	80540.99	L	7	FCC CATALYST
12	121410	15.25	1519	1.71	17766.08	80540.99	L	7	FCC FINES
12	121410	15.25	1718.2	1.71	20095.91	80540.99	L	7	FCC FINES
12	121410	15.25	100	1.24	1612.90	80540.99	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
12	121410	15.25	5.2	1.2	86.67	80540.99	S	18	RESIDUAL OIL TANK SLUDGE
12	121410	15.25	5.2	1.2	86.67	80540.99	S	18	RESIDUAL OIL TANK SLUDGE
12	121410	15.25	1	1.36	14.71	80540.99	S	20	OFF-SPEC SULFUR
12	121410	15.25	25	1.36	367.65	80540.99	S	20	OFF-SPEC SULFUR
12	121410	15.25	0.1	1.65	1.21	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	0.25	1.65	3.03	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	2.3	1.65	27.88	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	1	1.65	12.12	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	2	1.65	24.24	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	1	1.65	12.12	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	2	1.65	24.24	80540.99	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
12	121410	15.25	10	1.3	153.85	80540.99	S	22	TREATING CLAY FROM CLAY FILTERING
12	121410	15.25	700	1.323	10582.01	80540.99	L	12	CATALYST FROM HYDROREFINING
13	1861.61	1.52	9.67	2.35	82.30	1866.40	L	1	CATALYST FROM CLAUS UNIT
13	1861.61	1.52	69.72	1	1394.40	1866.40	S	6	EXTRACTION CLAY
13	1861.61	1.52	13.62	1.24	219.68	1866.40	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
13	1861.61	1.52	3.54	1.3	54.46	1866.40	S	22	TREATING CLAY FROM CLAY FILTERING
13	1861.61	1.52	9.06	1.568	115.56	1866.40	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)

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Table B.1 On-Site Landfill Source Input Data

Onsite Landfill No.	LF AREA (m^2)	Waste Unit Depth (m)	1992 Quantity MT	Specific Gravity	20-year Waste vol. (m^3)	Co-disposed 20-year Vol. (m^3)	WS type *	WS No.	Waste Stream
14	8094	3.05	212	1.71	2479.53	4818.71	L	7	FCC CATALYST
14	8094	3.05	200	1.71	2339.18	4818.71	L	7	FCC FINES
15	404.7	3.05	13	2.35	110.64	110.64	L	1	CATALYST FROM CLAUS UNIT
16	243629.4	MC	48	2.35	408.51	10733.79	L	1	CATALYST FROM CLAUS UNIT
16	243629.4	MC	48	2.35	408.51	10733.79	L	1	CATALYST FROM CLAUS UNIT
16	243629.4	MC	53	2.35	451.06	10733.79	L	1	CATALYST FROM CLAUS UNIT
16	243629.4	MC	500	1.323	7558.58	10733.79	L	12	CATALYST FROM HYDROREFINING
16	243629.4	MC	73	1.323	1103.55	10733.79	L	12	CATALYST FROM HYDROREFINING
16	243629.4	MC	63	1.568	803.57	10733.79	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)
17	36018	6.10	1300	1.71	15204.68	15204.68	L	7	FCC FINES
18	80.94	5.49	11.7	1.13	207.08	719.69	L	13	CATALYST FROM HYDROTREATING
18	80.94	5.49	16	1.24	258.06	719.69	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
18	80.94	5.49	21	1.65	254.55	719.69	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
19	2024	4.58	14.5	1.71	169.59	10508.77	L	7	FCC CATALYST
19	2024	4.58	884	1.71	10339.18	10508.77	L	7	FCC FINES
20	28329	2.13	38.8	1.13	686.73	33764.14	L	13	CATALYST FROM HYDROTREATING
20	28329	2.13	30	1.13	530.97	33764.14	L	13	CATALYST FROM HYDROTREATING
20	28329	2.13	104.5	2.35	889.36	33764.14	L	1	CATALYST FROM CLAUS UNIT
20	28329	2.13	9.7	1.24	156.45	33764.14	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
20	28329	2.13	25.4	1.24	409.68	33764.14	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
20	28329	2.13	69.4	1.24	1119.35	33764.14	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
20	28329	2.13	69.4	1.24	1119.35	33764.14	S	10	TREATING CLAY FROM ALKYLATION (HF AND H2SO4)
20	28329	2.13	12.8	1.2	213.33	33764.14	S	14	ISOMERIZATION CLAY
20	28329	2.13	0	1.36	0.00	33764.14	S	20	OFF-SPEC SULFUR
20	28329	2.13	52.7	1.65	638.79	33764.14	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
20	28329	2.13	50	1.3	769.23	33764.14	S	22	TREATING CLAY FROM CLAY FILTERING
20	28329	2.13	1.5	1.5	20.00	33764.14	L	23	UNLEADED GASOLINE TANK SLUDGE
20	28329	2.13	1800	1.323	27210.88	33764.14	L	12	CATALYST FROM HYDROREFINING
21	72846	0.26	33.6	1.13	594.69	1137.79	L	13	CATALYST FROM HYDROTREATING
21	72846	0.26	25.4	1.13	449.56	1137.79	L	13	CATALYST FROM HYDROTREATING

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Table B.1 On-Site Landfill Source Input Data

Onsite Landfill No.	LF AREA (m^2)	Waste Unit Depth (m)	1992 Quantity MT	Specific Gravity	20-year Waste vol. (m^3)	Co-disposed 20-year Vol. (m^3)	WS type *	WS No.	Waste Stream
21	72846	0.26	0.5	1.23	8.13	1137.79	L	17	CATALYST FROM REFORMING
21	72846	0.26	4.5	1.36	66.18	1137.79	S	20	OFF-SPEC SULFUR
21	72846	0.26	1	1.3	15.38	1137.79	S	22	TREATING CLAY FROM CLAY FILTERING
21	72846	0.26	0.25	1.3	3.85	1137.79	S	22	TREATING CLAY FROM CLAY FILTERING
22	50992.2	3.60	20	1.2	333.33	21619.71	L	2	OFF-SPEC PRODUCT AND FINES FROM THERMAL PROCESS
22	50992.2	3.60	379	1	7580.00	21619.71	S	6	EXTRACTION CLAY
22	50992.2	3.60	93	1.36	1367.65	21619.71	S	20	OFF-SPEC SULFUR
22	50992.2	3.60	4	1.65	48.48	21619.71	L	21	SULFUR COMPLEX SLUDGE (OTHER THAN STRETFORD)
22	50992.2	3.60	813	1.323	12290.25	21619.71	L	12	CATALYST FROM HYDROREFINING
23	29874.95	3.96	0	2.35	0.00	85.11	L	1	CATALYST FROM CLAUS UNIT
23	29874.95	3.96	10	2.35	85.11	85.11	L	1	CATALYST FROM CLAUS UNIT
23	29874.95	3.96	0	1.13	0.00	85.11	L	13	CATALYST FROM HYDROTREATING
23	29874.95	3.96	0	1.13	0.00	85.11	L	13	CATALYST FROM HYDROTREATING
24	21328	5.79	13	1.71	152.05	4187.13	L	7	FCC CATALYST
24	21328	5.79	0	1.71	0.00	4187.13	L	7	FCC CATALYST
24	21328	5.79	332	1.71	3883.04	4187.13	L	7	FCC FINES
24	21328	5.79	13	1.71	152.05	4187.13	L	7	FCC FINES
25	16997.4	3.96	126.9	1.13	2246.02	5129.31	L	13	CATALYST FROM HYDROTREATING
25	16997.4	3.96	48	1.13	849.56	5129.31	L	13	CATALYST FROM HYDROTREATING
25	16997.4	3.96	132	1.323	1995.46	5129.31	L	12	CATALYST FROM HYDROREFINING
25	16997.4	3.96	3	1.568	38.27	5129.31	L	19	TAIL GAS TREATING CATALYST (SCOT CATALYST)

1. The assignment of hydrotreating and hydrorefining catalyst wastes quantities to landfills do not reflect actual disposal practices, but are theoretical/ contingent management practices as discussed in section 2.3.2.

2. Data are from the 1992 RCRA Section 3007 Survey Database (Responses to Questionaire)

Table B.2 Off-Site Landfill 20-year Wastestream Volumes

Waste Stream	Facility ID	Specific Gravity	20-Year Baseline Waste Vol. (m^3) [1]	20-Year Codisposal Waste Vol. (m^3) [2]
FCC Catalyst and Fines	1	1.55	9,316	20,305
	3	1.55	86,361	160,183
	6	1.55	4,181	4,181
	8	1.55	14,232	74,791
	10	1.55	20,735	62,032
	11	1.55	21,187	22,374
	13	1.55	20,852	31,234
	14	1.55	7,200	39,829
	15	1.55	138,941	254,381
	16	1.55	20,645	20,849
	17	1.55	11,032	12,046
	18	1.55	65	13,751
	22	1.55	9,806	20,675
	23	1.55	191	40,476
	26	1.55	6,490	6,972
	29	1.55	903	3,038
	30	1.55	968	5,172
	31	1.55	2,452	2,556
	35	1.55	45,252	172,511
	36	1.55	18,348	18,348
	37	1.55	20,632	21,294
	38	1.55	19,910	26,007
	41	1.55	27,569	38,733
	42	1.55	2,323	15,139
	43	1.55	426	835
	44	1.55	5,084	5,084
	47	1.55	163	3,389
	48	1.55	7,742	14,065
	51	1.55	7,806	8,917
	52	1.55	11,419	11,419
	53	1.55	3,819	5,375
	55	1.55	284	402
	62	1.55	147	8,373
	67	1.55	177,850	337,596
	68	1.55	1,316	2,039
Unleaded Gasoline Tank Sludge	9	1.69	859	3,378
	12	1.69	379	8,614
	14	1.69	860	39,829
	22	1.69	24	20,675
	23	1.69	3,740	40,476
	27	1.69	1	199
	30	1.69	77	5,172
	38	1.69	12	26,007

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Table B.2 Off-Site Landfill 20-year Wastestream Volumes

Waste Stream	Facility ID	Specific Gravity	20-Year Baseline Waste Vol. (m^3) [1]	20-Year Codisposal Waste Vol. (m^3) [2]
Unleaded Gasoline Tank Sludge	39	1.69	36	36
(cont.)	41	1.69	118	38,733
	49	1.69	24	751
	55	1.69	118	402
	59	1.69	793	1,070
	63	1.69	17	5,263
	66	1.69	237	576
	69	1.69	71	75,677
	70	1.69	36	310
HF Alkylation Sludge	15	1.12	40,297	254,381
	22	1.12	4,371	20,675
	23	1.12	21,357	40,476
	25	1.12	35,304	37,956
	67	1.12	30,357	337,596
Hydrocracking Catalyst	3	2.32	8,621	160,183
	4	2.32	506	26,120
	8	2.32	2,586	74,791
	13	2.32	1,509	31,234
	15	2.32	509	254,381
CSO Sludge	1	1.48	4,176	20,305
	14	1.48	65	39,829
	15	1.48	246	254,381
	18	1.48	13,514	13,751
	19	1.48	2,493	8,576
	35	1.48	236	172,511
	42	1.48	3,797	15,139
	50	1.48	2,027	4,261
	63	1.48	2,365	5,263
	67	1.48	81,865	337,596
	69	1.48	42,473	75,677
Crude Tank Sludge	1	1.18	2,373	20,305
	4	1.18	21,441	26,120
	13	1.18	68	31,234
	20	1.18	839	839
	21	1.18	10,712	10,727
	22	1.18	322	20,675
	30	1.18	169	5,172
	41	1.18	254	38,733
	42	1.18	1,392	15,139
	63	1.18	1,712	5,263
	66	1.18	339	576
Sulfur Complex Sludge	1	0.96	17	20,305
	2	0.96	2	2

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Table B.2 Off-Site Landfill 20-year Wastestream Volumes

Waste Stream	Facility ID	Specific Gravity	20-Year Baseline Waste Vol. (m^3) [1]	20-Year Codisposal Waste Vol. (m^3) [2]
Sulfur Complex Sludge	3	0.96	1,500	160,183
(cont.)	7	0.96	38	105
	8	0.96	54,458	74,791
	9	0.96	1	3,379
	10	0.96	58	62,032
	14	0.96	11,146	39,829
	15	0.96	1,908	254,381
	16	0.96	4	20,849
	17	0.96	660	12,046
	19	0.96	129	8,576
	22	0.96	285	20,675
	23	0.96	54	40,476
	24	0.96	0	0
	25	0.96	38	37,956
	28	0.96	83	210
	29	0.96	21	3,038
	30	0.96	104	5,172
	31	0.96	125	2,556
	33	0.96	42	1,084
	34	0.96	1,365	142
	35	0.96	0	172,511
	40	0.96	417	439
	41	0.96	146	38,733
	42	0.96	31	15,139
	45	0.96	11	12
	46	0.96	604	611
	47	0.96	78	3,389
	48	0.96	16	14,065
	50	0.96	417	4,261
	51	0.96	219	8,917
	53	0.96	13	5,375
	54	0.96	1,028	28
	56	0.96	6	1,028
	58	0.96	2	108
	61	0.96	10	2
	62	0.96	10	8,373
	63	0.96	19	5,263
	64	0.96	125	25
	65	0.96	19,836	125
	67	0.96	0	337,596
Off Spec. Products and Fines	8	1.14	211	74,791
	14	1.14	9,386	39,829
	15	1.14	175	254,381

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Table B.2 Off-Site Landfill 20-year Wastestream Volumes

Waste Stream	Facility ID	Specific Gravity	20-Year Baseline Waste Vol. (m^3) [1]	20-Year Codisposal Waste Vol. (m^3) [2]
Off Spec. Products and Fines	25	1.14	1,591	37,956
(cont.)	35	1.14	101,000	172,511
	67	1.14	11,561	337,596
Hydrotreating Catalyst [3]	1	1.23	1,995	NA
	2	1.23	611	
	3	1.23	5,336	
	4	1.23	1,081	
	5	1.23	1,522	
	6	1.23	207	
	8	1.23	8,582	
	10	1.23	149	
	11	1.23	876	
	12	1.23	0	
	13	1.23	3,541	
	14	1.23	6,566	
	15	1.23	2,741	
	17	1.23	354	
	19	1.23	4,135	
	20	1.23	708	
	21	1.23	12,742	
	22	1.23	3,434	
	23	1.23	3,265	
	24	1.23	354	
	25	1.23	8,009	
	26	1.23	524	
	27	1.23	0	
	29	1.23	947	
	30	1.23	708	
	32	1.23	1,081	
	33	1.23	743	
	35	1.23	1,448	
	37	1.23	1,283	
	38	1.23	7,338	
	41	1.23	1,097	
	42	1.23	1,582	
	45	1.23	496	
	46	1.23	3,140	
	47	1.23	195	
	48	1.23	2,230	
	50	1.23	512	
	51	1.23	248	
	52	1.23	2,255	
	53	1.23	1,977	
	54	1.23	246	
	55	1.23	1,097	
	56	1.23	139	
	57	1.23	81	
	58	1.23	703	
	59	1.23	596	

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Table B.2 Off-Site Landfill 20-year Wastestream Volumes

Waste Stream	Facility ID	Specific Gravity	20-Year Baseline Waste Vol. (m^3) [1]	20-Year Codisposal Waste Vol. (m^3) [2]
Hydrotreating Catalyst (cont.)	63	1.23	524	NA
	64	1.23	53	
	66	1.23	354	
	67	1.23	12,611	
	68	1.23	319	
	69	1.23	584	
	70	1.23	1,634	
Hydrorefining Catalyst[3]	4	0.80	10,939	NA
	5	0.80	85,758	
	8	0.80	2,000	
	11	0.80	12,788	
	14	0.80	6,455	
	15	0.80	41,511	
	17	0.80	220	
	19	0.80	47,524	
	22	0.80	7,364	
	23	0.80	2,677	
	32	0.80	10,939	
	33	0.80	6,667	
	35	0.80	358	
	37	0.80	4,036	
	38	0.80	5,218	
	39	0.80	10,606	
	41	0.80	2,955	
	42	0.80	864	
	47	0.80	295	
	48	0.80	86,123	
	52	0.80	1,712	
	56	0.80	392	
	66	0.80	2,712	
	67	0.80	47,158	
	69	0.80	1,727	

1. 20-Year baseline volumes are equal to 20 time the 1992 annual quantity times the average off-site specific gravity.

2. Codisposal volumes are the sum of all 20-year petroleum waste volumes going to a landfill.

3. The assignment of hydrotreating and hydrorefining catalyst wastes quantities to landfills do not reflect actual disposal practices, but are theoretical/ contingent management practices as discussed in section 2.3.2.

4. Data are from the 1992 RCRA Section 3007 Survey Database

NA: Hydrotreating and Hydrorefining Catalyst were not included in the codisposal scenario

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