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Table 4
SUMMARY STATISTICS OF CONSTITUENTS DETECTED IN SOIL
All Soil Sampling Locations

EPA Centredale Manor Project
Centredale, RI

Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL Stnd	# Exceed	TCLP x20 Stnd	# Exceed	Stnd	# Exceed
Pesticides															
Dicamba	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0.0 ft	0 039	NA	0	NA	0		
Dichlorprop	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	0 078	NA	0	NA	0		
Dinoseb	mg/kg	0/72	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	0 012	NA	0	NA	0		
Endrin aldehyde	mg/kg	20/80	0 0012J	CMS-418	0 5 ft	1.7	CMS-419	1.5 ft	0.168	NA	0	NA	0		
Endrin ketone	mg/kg	0/41	BDL	AD-01	0 0 ft	BDL	AD-01	0 0 ft	0.271	NA	0	NA	0		
Toxaphene	mg/kg	1/77	0 013J	CMS-449	7 5 ft	0 013J	CMS-449	7.5 ft	2 946	NA	0	10	0		
Organochlorine Pesticides															
4,4'-DDD	mg/kg	16/77	0 003J	CMS-455	9 5 ft	1 2J	CMS-417	0 5 ft	0 134	NA	0	NA	0		
4,4'-DDE	mg/kg	44/82	0 00067J	CMS-423	7 5 ft	2 2J	CMS-417	1 5 ft	0.167	NA	0	NA	0		
4,4'-DDT	mg/kg	11/77	0 0013J	CMS-418	1 5 ft	0 41J	CMS-419	1 5 ft	0 154	NA	0	NA	0		
Aldrin	mg/kg	10/77	0 0021J	CMS-423	5 5 ft	1 2J	CMS-417	1 5 ft	0 109	NA	0	NA	0		
Chlordane	mg/kg	10/61	0 00049	AD-04	2 5 ft	0 35J	CMS-164	0 5 ft	0 115	0 5	0	0 6	0		
Dieldrin	mg/kg	37/79	0 00098J	CMS-418	1 5 ft	9 9J	CMS-417	1 5 ft	0 269	0.04	18	NA	0		
Endosulfan I	mg/kg	3/77	0 00055J	AD-04	2.5 ft	0 67J	CMS-417	2 5 ft	0 071	NA	0	NA	0		
Endosulfan II	mg/kg	2/77	0 0012J	AD-04	2.5 ft	0 0041J	CMS-192	0.5 ft	0.146	NA	0	NA	0		
Endosulfan sulfate	mg/kg	7/78	0 0027J	CMS-423	1 5 ft	0 054	CMS-419	1.5 ft	0 145	NA	0	NA	0		
Endrin	mg/kg	15/77	0 001J	CMS-173	1.5 ft	2 1J	CMS-417	2 5 ft	0 130	NA	0	0.4	3		
Heptachlor	mg/kg	7/77	0 0026J	CMS-423	1 5 ft	5 1J	CMS-417	2.5 ft	0.191	NA	0	NA	0		
Heptachlor epoxide	mg/kg	3/77	0 00036J	CMS-418	0.5 ft	0 011J	CMS-419	1.5 ft	0 075	NA	0	0 16	0		
Methoxychlor	mg/kg	4/63	0 006J	CMS-456	0.5 ft	0 46	CMS-419	1 5 ft	0.896	NA	0	200	0		
alpha-BHC	mg/kg	3/77	0 024	CMS-451	5.5 ft	0 052J	CMS-449	5 5 ft	0 076	NA	0	NA	0		
alpha-Chlordane	mg/kg	5/41	0 00049J	AD-04	2 5 ft	0 16J	CMS-164	0 5 ft	0 134	NA	0	NA	0		
beta-BHC	mg/kg	8/78	0 0014J	CMS-456	0 5 ft	0 0062J	CMS-215	0 5 ft	0 074	NA	0	NA	0		
delta-BHC	mg/kg	3/77	0 00054J	CMS-451	9 5 ft	0 038J	CMS-451	5 5 ft	0 075	NA	0	NA	0		
gamma-BHC (Lindane)	mg/kg	1/77	0 031J	CMS-419	1.5 ft	0 031J	CMS-419	1.5 ft	0.075	NA	0	8	0		
gamma-Chlordane	mg/kg	7/41	0 0022J	CMS-089	2.5 ft	0 25J	CMS-237	0.5 ft	0.139	NA	0	NA	0		

NOTES:

** Frequency of detection indicates the number of samples in which a constituent was detected over the number of samples tested for the constituent.

*** Average concentration calculated using 1/2 the detection limit for non-detect results.

RI Residential Standards Source:

Table 1 Direct Exposure Criteria, Remediation Regulations,
DEM-DSR-01-93, 31 March 1993, amended August 1996, Division of Site Remediation Department of Environmental Management,
State of Rhode Island and Providence Plantation

Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL		TCLP x20			
										Stnd	# Exceed	Stnd	# Exceed	Stnd	# Exceed
Herbicides															
2,4,5-T	mg/kg	1/73	0 021J	CMS-451	7 5 ft	0 021J	CMS-451	7 5 ft	0 020	NA	0	NA	0		
2,4,5-TP (Silvex)	mg/kg	1/73	0 059J	CMS-417	1 5 ft	0 059J	CMS-417	1 5 ft	0 020	NA	0	20	0		
2,4-D	mg/kg	1/60	0 071J	CMS-419	1 5 ft	0 071J	CMS-419	1 5 ft	0 076	NA	0	200	0		
2,4-DB	mg/kg	2/61	0 043J	CMS-427	3 5 ft	0 36J	CMS-417	0 5 ft	0 080	NA	0	NA	0		
Carbazole	mg/kg	10/71	0 2J	CMS-405	3 5 ft	0 65	CMS-405	0 5 ft	1 487	NA	0	NA	0		
Dalapon	mg/kg	10/73	0 0098J	CMS-419	1 5 ft	0 24	CMS-428	5 5 ft	0 041	NA	0	NA	0		
MCPA	mg/kg	1/72	5 8J	CMS-456	1 5 ft	5 8J	CMS-456	1 5 ft	7 845	NA	0	NA	0		
MCPP	mg/kg	6/73	1 6J	CMS-455	5 5 ft	68 0J	CMS-451	9 5 ft	7 582	NA	0	NA	0		
Dioxins															
1,2,3,4,6,7,8-HpDD	mg/kg	70/77	0 0000038J	AD-03	0 5 ft	0 00815J	CMS-483	2 5 ft	0 001	NA	0	NA	0		
1,2,3,4,6,7,8-HpDF	mg/kg	74/77	0 00000297	CMS-460	0 5 ft	0 000868	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,4,7,8,9-HpDF	mg/kg	58/77	0 00000024	CMS-460	0 5 ft	0 0000782	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,4,7,8-HxDD	mg/kg	59/77	0 00000020	CMS-460	0 5 ft	0 0001J	AD-04	0 5 ft	0 000	NA	0	NA	0		
1,2,3,4,7,8-HxDF	mg/kg	69/77	0 00000075	CMS-460	0 5 ft	0 00009	AD-04	0 5 ft	0 000	NA	0	NA	0		
1,2,3,6,7,8-HxDD	mg/kg	58/77	0 00000114	CMS-501	0 5 ft	0 000845	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,6,7,8-HxDF	mg/kg	68/68	0 00000060	CMS-460	0 5 ft	0 000078J	AD-04	0 5 ft	0 000	NA	0	NA	0		
1,2,3,7,8,9-HxDD	mg/kg	59/77	0 00000080	CMS-501	0 5 ft	0 000409	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,7,8,9-HxDF	mg/kg	55/77	0 00000017	CMS-460	0 5 ft	0 0000381	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,7,8-PeDD	mg/kg	45/77	0 00000039	CMS-492	0 5 ft	0 000253	CMS-470	1 5 ft	0 000	NA	0	NA	0		
1,2,3,7,8-PeDF	mg/kg	64/77	0 00000033	CMS-492	0 5 ft	0 0000373	CMS-478	0 5 ft	0 000	NA	0	NA	0		
2,3,4,6,7,8-HxDF	mg/kg	65/77	0 00000091	CMS-460	0 5 ft	0 0000836	CMS-470	1 5 ft	0 000	NA	0	NA	0		
2,3,4,7,8-PeDF	mg/kg	67/77	0 00000131	CMS-498	0 5 ft	0 000135J	CMS-487	1 5 ft	0 000	NA	0	NA	0		
2,3,7,8-TCDD	mg/kg	589/795	0 00000068	AD-02	0 5 ft	0 14J	CMS-240	0 5 ft	0 004	0 001	237	NA	0		
2,3,7,8-TCDF	mg/kg	68/77	0 00000044	CMS-484	0 5 ft	0 000184	CMS-470	0 5 ft	0 000	NA	0	NA	0		
OCDD	mg/kg	76/77	0 0000058J	AD-01	11 2 ft	0 0451J	CMS-483	2 5 ft	0 003	NA	0	NA	0		
OCDF	mg/kg	70/77	0 0000035	CMS-460	0 5 ft	0 00104	CMS-470	1 5 ft	0 000	NA	0	NA	0		
PCDD/Fs	mg/kg	66/66	0 000212	CMS-460	0 5 ft	0 0683	CMS-487	0 5 ft	0 010	NA	0	NA	0		
Total HpCDDs	mg/kg	70/77	0 0000077	AD-03	0 5 ft	0 013J	CMS-483	2 5 ft	0 001	NA	0	NA	0		
Total HpCDFs	mg/kg	74/77	0 000003	AD-03	0 5 ft	0 00169J	CMS-470	1 5 ft	0 000	NA	0	NA	0		
Total HxCDDs	mg/kg	60/77	0 00000562	CMS-486	0 5 ft	0 00595J	CMS-470	1 5 ft	0 000	NA	0	NA	0		
Total HxCDFs	mg/kg	69/77	0 0000046	AD-02	0 5 ft	0 0019	AD-04	0 5 ft	0 000	NA	0	NA	0		
Total PeCDDs	mg/kg	54/77	0 00000387	CMS-492	0 5 ft	0 00204J	CMS-470	1 5 ft	0 000	NA	0	NA	0		
Total PeCDFs	mg/kg	68/77	0 0000061	AD-02	0 5 ft	0 00318J	CMS-470	0 5 ft	0 000	NA	0	NA	0		
Total TCDDs	mg/kg	72/77	0 00000068	AD-02	0 5 ft	0 096	AD-04	0 5 ft	0 004	NA	0	NA	0		
Total TCDFs	mg/kg	74/77	0 00000073	AD-03	0 5 ft	0 0034J	CMS-487	0 5 ft	0 000	NA	0	NA	0		
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	2 2	0	NA	0		
1,1,1-Trichloroethane	mg/kg	2/69	27 0J	CMS-417	0 5 ft	110 0J	CMS-417	1 5 ft	2 612	540	0	NA	0		
1,1,2,2-Tetrachloroethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	1 3	0	NA	0		
1,1,2-Trichloroethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	3 6	0	NA	0		
1,1-Dichloroethane	mg/kg	2/69	0 15J	CMS-417	3 5 ft	7 0J	CMS-417	2 5 ft	1 975	920	0	NA	0		
1,1-Dichloroethene	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	0 2	0	14	0		
1,1-Dichloropropene	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
1,2,3-Trichlorobenzene	mg/kg	5/69	0 0028J	CMS-427	3 5 ft	180 0	CMS-417	0 5 ft	4 466	NA	0	NA	0		
1,2,3-Trichloropropane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
1,2,4-Trichlorobenzene	mg/kg	17/75	0 0013J	CMS-427	7 5 ft	340 0	CMS-417	0 5 ft	9 614	96	2	NA	0		

NOTES:

** Frequency of detection indicates the number of samples in which a constituent was detected over the number of samples tested for the constituent.

*** Average concentration calculated using 1/2 the detection limit for non-detect results.

RI Residential Standards Source:

Table 1 Direct Exposure Criteria, Remediation Regulations,
DEM-DSR-01-93, 31 March 1993, amended August 1996, Division of Site Remediation Department of Environmental Management,
State of Rhode Island and Providence Plantation

Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL		TCLP x20			
										Stnd	# Exceed	Stnd	# Exceed	Stnd	# Exceed
1,2,4-Trimethylbenzene	mg/kg	19/69	0 0017J	CMS-703	0 5 ft	160 0	CMS-417	1 5 ft	5 356	NA	0	NA	0		
1,2-Dibromo-3-chloropropane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	4 063	0 5	0	NA	0		
1,2-Dibromoethane (EDB)	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	2 385	0 01	0	NA	0		
1,2-Dichlorobenzene	mg/kg	19/75	0 0021J	CMS-427	1 5 ft	2800 0	CMS-417	1 5 ft	61 173	510	2	NA	0		
1,2-Dichloroethane	mg/kg	1/69	1 7J	CMS-405	4 5 ft	1 7J	CMS-405	4 5 ft	2 014	0 9	1	10	0		
1 2-Dichloropropane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	1 9	0	NA	0		
1,3,5-Trimethylbenzene	mg/kg	10/69	0 0082	CMS-419	7 5 ft	42 0J	CMS-417	1 5 ft	1 735	NA	0	NA	0		
1,3-Dichlorobenzene	mg/kg	5/75	0 0013J	CMS-427	1 5 ft	13 0J	CMS-419	1 5 ft	2 146	430	0	NA	0		
1 3-Dichloropropane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
1 4-Dichlorobenzene	mg/kg	16/75	0 0027J	CMS-419	5 5 ft	40 0J	CMS-417	1 5 ft	1 854	27	3	150	0		
2,2-Dichloropropane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
2-Chlorotoluene	mg/kg	1/69	0 097J	CMS-449	5 5 ft	0 097J	CMS-449	5 5 ft	1 996	NA	0	NA	0		
4-Chlorotoluene	mg/kg	5/69	0 0023J	CMS-419	5 5 ft	8 7J	CMS-419	1 5 ft	1 918	NA	0	NA	0		
Benzene	mg/kg	17/73	0 0017J	CMS-455	4 5 ft	480 0	CMS 408	2 5 ft	15 535	2 5	6	10	6		
Bromobenzene	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
Bromochloromethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
Bromodichloromethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	10	0	NA	0		
Bromoform	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	81	0	NA	0		
Bromomethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	3 674	0 8	0	NA	0		
Carbon tetrachloride	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	1 5	0	10	0		
Chlorobenzene	mg/kg	25/70	0 0011J	CMS-455	7 5 ft	1000 0	CMS-417	1 5 ft	27 381	210	4	2000	0		
Chloroethane	mg/kg	0/67	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	3 779	NA	0	NA	0		
Chloroform	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	1 2	0	120	0		
Chloromethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	3 674	NA	0	NA	0		
Dibromochloromethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	7 6	0	NA	0		
Dibromomethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
Dichlorodifluoromethane	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	3 674	NA	0	NA	0		
Ethylbenzene	mg/kg	20/70	0 0017J	CMS-427	7 5 ft	81 0J	CMS-417	1 5 ft	3 541	71	1	NA	0		
Isopropylbenzene	mg/kg	9/70	0 0043J	CMS-419	5 5 ft	5 4J	CMS-419	1 5 ft	1 844	27	0	NA	0		
Methylene chloride	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	2 385	45	0	NA	0		
Styrene	mg/kg	3/69	0 0025J	CMS-427	3 5 ft	10 0J	CMS-417	2 5 ft	1 960	13	0	NA	0		
Tetrachloroethene	mg/kg	27/70	0 0022J	CMS-451	9 5 ft	1700 0	CMS-417	1 5 ft	41 692	12	6	14	6		
Toluene	mg/kg	16/70	0 0022J	CMS-456	0 5 ft	430 0	CMS-417	1 5 ft	11 106	190	1	NA	0		
Total Volatile Organics	mg/kg	55/73	0 0017	CMS-455	4 5 ft	10000 0	CMS-417	1 5 ft	262 059	NA	0	NA	0		
Trichloroethene	mg/kg	24/70	0 0014J	CMS-419	7 5 ft	2400 0	CMS-417	1 5 ft	44 685	13	5	10	5		
Trichlorofluoromethane	mg/kg	1/69	0 0031J	CMS-427	7 5 ft	0 0031J	CMS-427	7 5 ft	3 674	NA	0	NA	0		
Vinyl chloride	mg/kg	1/69	0 07	CMS-456	1 5 ft	0 07	CMS-456	1 5 ft	3 675	0 02	1	4	0		
Xylene (total)	mg/kg	23/70	0 0014	CMS-427	7 5 ft	380 0J	CMS-417	1 5 ft	14 701	110	3	NA	0		
cis-1,2-Dichloroethene	mg/kg	21/70	0 0016J	CMS-118	1 5 ft	500 0	CMS-417	1 5 ft	18 655	630	0	NA	0		
cis-1,3-Dichloropropene	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
m-Xylene/p-Xylene	mg/kg	23/70	0 0014J	CMS-427	7 5 ft	270 0	CMS-417	1 5 ft	11 068	NA	0	NA	0		
n-Butylbenzene	mg/kg	5/69	0 002J	CMS-419	7 5 ft	18 0J	CMS-417	0 5 ft	1 731	NA	0	NA	0		
n-Propylbenzene	mg/kg	6/70	0 003J	CMS-419	7 5 ft	0 15J	CMS-407	3 5 ft	1 968	NA	0	NA	0		
o-Xylene	mg/kg	18/70	0 011J	CMS-237	1 5 ft	110 0J	CMS-417	1 5 ft	3 857	NA	0	NA	0		
p-Isopropyltoluene	mg/kg	3/69	0 034	CMS-427	3 5 ft	0 18J	CMS-417	3 5 ft	1 997	NA	0	NA	0		
sec-Butylbenzene	mg/kg	4/70	0 0029J	CMS-427	3 5 ft	1 0J	CMS-405	1 5 ft	1 954	NA	0	NA	0		
tert-Butylbenzene	mg/kg	2/69	0 0089	CMS-427	3 5 ft	10 0J	CMS-419	1 5 ft	1 939	NA	0	NA	0		

NOTES:

** Frequency of detection indicates the number of samples in which a constituent was detected over the number of samples tested for the constituent.

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State of Rhode Island and Providence Plantation

Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL Stnd	RESIDENTIAL # Exceed	TCLP x20 Stnd	TCLP x20 # Exceed	Stnd	# Exceed
trans-1,2-Dichloroethene	mg/kg	2/70	0 0045J	CMS-237	2 5 ft	8 4J	CMS-417	2 5 ft	1 967	1100	0	NA	0		
trans-1,3-Dichloropropene	mg/kg	0/69	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 996	NA	0	NA	0		
Semi-Volatile Organic Compounds															
2,4,5-Trichlorophenol	mg/kg	5/73	0 17J	CMS-456	0 5 ft	7 9	CMS-451	5 5 ft	1.708	330	0	8000	0		
2,4,6-Trichlorophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	58	0	40	0		
2,4-Dichlorophenol	mg/kg	1/73	0 094J	CMS-451	7 5 ft	0 094J	CMS-451	7 5 ft	1 475	30	0	NA	0		
2,4-Dimethylphenol	mg/kg	2/73	0 14J	CMS-419	3 5 ft	0 9J	CMS-417	3 5 ft	1.478	1400	0	NA	0		
2,4-Dinitrophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7 174	160	0	NA	0		
2,4-Dinitrotoluene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	0 9	0	2 6	0		
2,6-Dinitrotoluene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
2-Chloronaphthalene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
2-Chlorophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	50	0	NA	0		
2-Methylnaphthalene	mg/kg	19/85	0 061J	CMS-089	2 5 ft	9 3J	CMS-417	1 5 ft	1 070	123	0	NA	0		
2-Methylphenol	mg/kg	1/73	0 79J	CMS-417	3 5 ft	0 79J	CMS-417	3 5 ft	1.477	NA	0	4000	0		
2-Nitroaniline	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7.174	NA	0	NA	0		
2-Nitrophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
3&4 Methylphenol	mg/kg	2/71	4 9	CMS-417	3 5 ft	8 0J	CMS-417	2 5 ft	1 574	NA	0	NA	0		
3,3'-Dichlorobenzidine	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7.174	1 4	0	NA	0		
3-Nitroaniline	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7.174	NA	0	NA	0		
4,6-Dinitro-2-methylphenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7.174	NA	0	NA	0		
4-Bromophenyl phenyl ether	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
4-Chloro-3-methylphenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1.479	NA	0	NA	0		
4-Chloroaniline	mg/kg	4/73	0 41J	CMS-089	1 5 ft	280 0	CMS-417	0 5 ft	5 139	310	0	NA	0		
4-Chlorophenyl phenyl ether	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
4-Methylphenol	mg/kg	0/2	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 645	NA	0	NA	0		
4-Nitroaniline	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7.174	NA	0	NA	0		
4-Nitrophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7 174	NA	0	NA	0		
Acenaphthene	mg/kg	23/85	0 066J	CMS-449	7 5 ft	4 3J	CMS-417	0 5 ft	1 108	43	0	NA	0		
Acenaphthylene	mg/kg	23/85	0 067J	CMS-118	1 5 ft	4 4J	CMS-405	1 5 ft	1.340	23	0	NA	0		
Anthracene	mg/kg	36/85	0 075J	CMS-060	4 5 ft	2 1J	CMS-405	1 5 ft	1 310	35	0	NA	0		
Benz(a)anthracene	mg/kg	54/85	0 033J	AD-01	0 5 ft	5 5J	CMS-405	1 5 ft	1 584	0 9	24	NA	0		
Benzo(a)pyrene	mg/kg	51/85	0 07J	AD-03	0 5 ft	7 1J	CMS-405	1 5 ft	1 622	0 4	29	NA	0		
Benzo(b)fluoranthene	mg/kg	47/85	0 054J	AD-01	0 5 ft	10 0J	CMS-405	1 5 ft	1 953	0 9	23	NA	0		
Benzo(ghi)perylene	mg/kg	32/85	0 067J	AD-03	0 5 ft	4 2J	CMS-405	1 5 ft	1 461	0 8	11	NA	0		
Benzo(k)fluoranthene	mg/kg	11/85	0 067J	AD-03	0 5 ft	8 3	AD-04	0 5 ft	1 615	0 9	9	NA	0		
Benzoic acid	mg/kg	0/71	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	7 152	NA	0	NA	0		
Benzyl alcohol	mg/kg	0/71	BDL	CMS-060	0 0 ft	BDL	CMS-060	0 0 ft	1 475	NA	0	NA	0		
Bis(2-chloroisopropyl)ether	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	9 1	0	NA	0		
Butyl benzyl phthalate	mg/kg	9/73	0 076J	CMS-419	3 5 ft	27 0J	CMS-419	1 5 ft	1 114	NA	0	NA	0		
Chrysene	mg/kg	52/85	0 08J	AD-03	0 5 ft	4 4	AD-04	0 5 ft	1 671	0 4	34	NA	0		
Di-n-butyl phthalate	mg/kg	25/73	0 068J	CMS-060	4 5 ft	120 0	CMS-419	1 5 ft	3 073	NA	0	NA	0		
Di-n-octyl phthalate	mg/kg	6/73	0 29J	CMS-427	3 5 ft	7 6J	CMS-417	0 5 ft	1.439	NA	0	NA	0		
Dibenz(a,h)anthracene	mg/kg	20/85	0 12J	CMS-060	0 5 ft	1 0J	CMS-405	1 5 ft	1.297	0 4	3	NA	0		
Dibenzofuran	mg/kg	14/73	0 073J	CMS-118	0 5 ft	0 39J	CMS-405	1 5 ft	1 450	NA	0	NA	0		
Diethyl phthalate	mg/kg	5/73	0 057J	CMS-118	0 5 ft	3.2	CMS-405	3 5 ft	1.498	340	0	NA	0		
Dimethyl phthalate	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	1900	0	NA	0		
Fluoranthene	mg/kg	63/85	0 06J	CMS-419	7 5 ft	14 0J	CMS-419	1 5 ft	1.773	20	0	NA	0		

NOTES:

** Frequency of detection indicates the number of samples in which a constituent was detected over the number of samples tested for the constituent.

***Average concentration calculated using 1/2 the detection limit for non-detect results.

RI Residential Standards Source:

Table 1 Direct Exposure Criteria, Remediation Regulations,
DEM-DSR-01-93, 31 March 1993, amended August 1996, Division of Site Remediation Department of Environmental Management,
State of Rhode Island and Providence Plantation

Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL		TCLP x20			
										Stnd	# Exceed	Stnd	# Exceed	Stnd	# Exceed
Fluorene	mg/kg	32/85	0 053J	CMS-423	1 5 ft	1 5J	CMS-405	1 5 ft	1 255	28	0	NA	0		
Hexachlorobenzene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	0 4	0	2 6	0		
Hexachlorobutadiene	mg/kg	2/75	0 0013J	CMS-427	7 5 ft	1 0J	CMS-408	1 5 ft	2 453	8 2	0	NA	0		
Hexachlorocyclopentadiene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7 174	NA	0	NA	0		
Hexachloroethane	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	46	0	60	0		
Indeno(1,2,3-cd)pyrene	mg/kg	36/85	0 035J	AD-01	0 5 ft	3 3J	CMS-405	1 5 ft	1 419	0 9	9	NA	0		
Isophorone	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
N-Nitrosodi-n-propylamine	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
N-Nitrosodiphenylamine	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
Naphthalene	mg/kg	29/87	0 0033J	CMS-089	1 5 ft	84 0J	CMS-417	1 5 ft	2 386	54	1	NA	0		
Nitrobenzene	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	40	0		
Pentachlorophenol	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	7 174	5 3	0	2000	0		
Phenanthrene	mg/kg	59/85	0 054J	CMS-089	2 5 ft	22 0J	CMS-419	1 5 ft	1 537	40	0	NA	0		
Phenol	mg/kg	2/73	0 16J	CMS-405	1 5 ft	0 51	CMS-408	2 5 ft	1 477	6000	0	NA	0		
Pyrene	mg/kg	55/85	0 07J	AD-01	0 5 ft	16 0J	CMS-417	0 5 ft	2 242	13	1	NA	0		
Total Semi-Volatile Organics	mg/kg	72/85	0 072	CMS-405	4 5 ft	1000 0	CMS-417	0 5 ft	38 955	NA	0	NA	0		
bis(2-Chloroethoxy)methane	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	NA	0	NA	0		
bis(2-Chloroethyl) ether	mg/kg	0/73	BDL	BV01CO	0 0 ft	BDL	BV01COM	0 0 ft	1 479	0 6	0	NA	0		
bis(2-Ethylhexyl) phthalate	mg/kg	54/73	0 061J	CMS-455	2 5 ft	460 0	CMS-417	0 5 ft	15 552	46	3	NA	0		
Polychlorinated Biphenyls (PCBs)															
Aroclor 1016	mg/kg	1/377	0 458	CMS-432	1 5 ft	0 458	CMS-432	1 5 ft	2 036	NA	0	NA	0		
Aroclor 1221	mg/kg	0/377	BDL	AD-01	0 0 ft	BDL	AD-01	0 0 ft	1 666	NA	0	NA	0		
Aroclor 1232	mg/kg	5/377	1 2J	CMS-432	1 5 ft	250 0	CMS-417	0 5 ft	4 085	NA	0	NA	0		
Aroclor 1242	mg/kg	13/377	0 02J	CMS-406	1 5 ft	230 0	CMS-410	0 5 ft	3 249	NA	0	NA	0		
Aroclor 1248	mg/kg	24/377	0 059J	CMS-409	4 5 ft	420 0J	CMS-402	2 5 ft	3 948	NA	0	NA	0		
Aroclor 1254	mg/kg	285/377	0 0074J	CMS-423	4 5 ft	1300 0	CMS-147	2 5 ft	17 443	NA	0	NA	0		
Aroclor 1260	mg/kg	5/377	0 024J	CMS-701	0 5 ft	0 678a	CMS-432	1 5 ft	1 677	NA	0	NA	0		
PCB's	mg/kg	297/377	0 0074J	CMS-423	4 5 ft	1300 0	CMS-147	2 5 ft	20 518	10	57	NA	0		
Metals															
Aluminum	mg/kg	73/73	1890	CMS-418	1 5 ft	16100	CMS-215	0 5 ft	6338 08	NA	0	NA	0		
Antimony	mg/kg	35/65	0 24J	CMS-060	1 5 ft	27 8J	CMS-417	0 5 ft	4 050	10	4	NA	0		
Arsenic	mg/kg	72/85	0 76J	CMS-427	7 5 ft	49 3	CMS-118	2 5 ft	7 728	1 7	61	100	0		
Barium	mg/kg	85/85	10 2J	CMS-427	7 5 ft	1010J	CMS-417	1 5 ft	131 989	5500	0	2000	0		
Beryllium	mg/kg	73/73	0 19J	CMS-418	1 5 ft	3 9	CMS-419	7 5 ft	0 748	0 4	55	NA	0		
Cadmium	mg/kg	54/85	0 15J	CMS-060	4 5 ft	180	CMS-417	1 5 ft	4 556	39	1	20	3		
Chromium	mg/kg	85/85	2 4J	CMS-419	5 5 ft	472	CMS-192	0 5 ft	54 673	NA	0	100	13		
Cobalt	mg/kg	73/73	1 4J	CMS-405	4 5 ft	30 1	CMS-417	0 5 ft	5 619	NA	0	NA	0		
Copper	mg/kg	73/73	2 8J	CMS-427	7 5 ft	934	CMS-417	1 5 ft	81 833	3100	0	NA	0		
Cyanide (Total)	mg/kg	12/73	0 89	CMS-089	1 5 ft	8 2	CMS-417	0 5 ft	0 714	200	0	NA	0		
Iron	mg/kg	73/73	4020	CMS-427	7 5 ft	72000	CMS-237	1 5 ft	17409 7	NA	0	NA	0		
Lead	mg/kg	85/85	2 4J	CMS-427	7 5 ft	3160J	CMS-405	3 5 ft	228 142	150	27	100	29		
Magnesium	mg/kg	73/73	372J	CMS-451	7 5 ft	5980J	CMS-407	1 5 ft	1486 14	NA	0	NA	0		
Manganese	mg/kg	73/73	68 5	CMS-427	7 5 ft	6420	CMS-419	5 5 ft	368 299	390	14	NA	0		
Mercury	mg/kg	65/81	0 0061J	AD-01	2 5 ft	7 4	CMS-417	0 5 ft	0 458	23	0	4 0	2		
Molybdenum	mg/kg	71/73	0 34J	CMS-407	0 5 ft	35 6	CMS-164	0 5 ft	4 527	NA	0	NA	0		
Nickel	mg/kg	73/73	2 4J	CMS-449	9 5 ft	74 3	CMS-456	1 5 ft	15 692	1000	0	NA	0		
Selenium	mg/kg	54/85	0 47J	CMS-428	3 5 ft	15 1J	CMS-118	2 5 ft	6 783	390	0	20	0		

NOTES:

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Constituent	Units	** Freq. of Detect.	Minimum Concentration			Maximum Concentration			*** Avg. Conc.	Comparison to Standards RESIDENTIAL Stnd	RESIDENTIAL # Exceed	TCLP x20 Stnd	TCLP x20 # Exceed	Stnd	# Exceed
Silver	mg/kg	27/85	0 16J	CMS-089	2 5 ft	35 5	CMS-237	1 5 ft	1 645	200	0	100	0		
Thallium	mg/kg	3/73	0 58J	CMS-118	1 5 ft	6 2J	CMS-419	5.5 ft	133 827	5 5	1	NA	0		
Vanadium	mg/kg	73/73	4 1J	CMS-427	7 5 ft	72 5	CMS-456	1 5 ft	20 212	550	0	NA	0		
Zinc	mg/kg	73/73	12 7	CMS-427	7 5 ft	3330	CMS-237	1 5 ft	381 948	6000	0	NA	0		
General Chemistry															
Calcium	mg/kg	73/73	428J	CMS-418	1 5 ft	18100J	CMS-405	1.5 ft	2330 00	NA	0	NA	0		
Potassium	mg/kg	73/73	236J	CMS-451	7 5 ft	2890	CMS-407	1 5 ft	814 082	NA	0	NA	0		
Sodium	mg/kg	71/73	47 9J	BV01CO	2 0 ft	737	CMS-455	2 5 ft	186 914	NA	0	NA	0		
Total Organic Carbon	mg/kg	12/12	506	AD-04	9 5 ft	99000	AD-04	0 5 ft	16088 8	NA	0	NA	0		

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