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TABLE 4-13
AREA A-3, SEDIMENT CONTAMINANTS EXCEEDING BACKGROUND [1]
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
Phenanthrene	UG/KG	1900	30/58	790	7100	SD12	0.0-0.5	2/16	4900	30000	HU235A N1380,W182	3.0-3.6
Pyrene	UG/KG	2500	39/58	1400	11000	SD23; SD24	.0-0.5; 0.0-0	4/17	2600	33000	HU235A N1380,W182	3.0-3.6
bis(2-Ethylhexyl)phthalate	UG/KG	620	29/50	1100	160000	SD08W	0.0-0.5	1/17	2200	2200	A3-SD01	2.0-4.0
Butylbenzylphthalate	UG/KG	620	3/48	640	1700	A3-SD06	0.0-2.0	0/17				
Di-n-Butylphthalate	UG/KG	620	5/50	660	1900	SD06; SD14	.0-0.5; 0.0-0	0/16				
Di-n-octylphthalate	UG/KG	620	8/48	670	4200	SD08W	0.0-0.5	0/16				
Dimethylphthalate	UG/KG	620	3/47	720	2200	SD14	0.0-0.5	0/16				
PCBs												
Aroclor, Total	UG/KG	270	40/51	295.5	134500	A3-SD02	0.0-2.0	7/18	281.5	66325	A3-SD02	2.0-4.0
Aroclor-1248	UG/KG	17	1/47	1190	1190	SD09W	0.0-0.5	0/16				
Aroclor-1254	UG/KG	17	3/49	210	370	SD08W	0.0-0.5	0/16				
Aroclor-1260	UG/KG	17	2/48	5100	24125	SD09W	0.0-0.5	0/16				
Aroclor-1262	UG/KG	17	29/51	31	68000	A3-SD02	0.0-2.0	7/16	34	38000	A3-SD02	2.0-4.0
Aroclor-1268	UG/KG	17	40/50	21	60000	A3-SD02	0.0-2.0	7/16	30	27000	A3-SD02	2.0-4.0
PESTICIDES												
4,4'-DDD	UG/KG	2.3	21/47	2.8	80	SD24	0.0-0.5	3/16	5.3	17	A3-SD01	2.0-4.0
4,4'-DDE	UG/KG	1	29/50	1.6	80	HU75A N647,W285	0.0-0.5	4/13	1.4	30	A3-SD01	2.0-4.0
4,4'-DDT	UG/KG	2	15/44	2.5	220	SPD B2	0.0-0.5	1/13	8.2	8.2	HU221A N1465,W140	6.0-8.0
Aldrin	UG/KG	0.94	18/47	0.97	12	A3-SD01	0.0-2.0	2/16	3	7.7	A3-SD02	2.0-4.0
alpha-BHC	UG/KG	1.4	6/46	1.9	4.25	SD01	0.0-0.5	1/16	4.4	4.4	A3-SD01	2.0-4.0
alpha-Chlordane	UG/KG	0.29	26/50	1.1	110	SPD B2	0.0-0.5	1/16	1.2	1.2	HU221A N1465,W140	6.0-8.0
BETA-BHC	UG/KG	0.86	7/46	0.88	12	SD02	0.5-1.0	0/16				
delta-BHC	UG/KG	0.86	3/47	3.7	24	SD01	0.0-0.5	1/16	1.2	1.2	A3-SD02	2.0-4.0
Dieldrin	UG/KG	1.7	22/47	1.7	39	SD16	0.0-0.5	2/16	2.5	7.4	A3-SD01	2.0-4.0
Endosulfan I	UG/KG	0.86	5/44	4.2	21	A3-SD02	0.0-2.0	3/13	1.3	7.4	A3-SD01	2.0-4.0

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RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
Endosulfan II	UG/KG	0.98	2/45	1.6	43	SD02	0.0-0.5	0/14				
Endosulfan Sulfate	UG/KG	1.7	8/45	6	55	SD14	0.5-1.0	2/16	2.7	14	A3-SD01	2.0-4.0
Endrin	UG/KG	1.2	13/47	1.2	37.5	A3-SD05	0.0-2.0	1/16	5.6	5.6	A3-SD01	2.0-4.0
Endrin Aldehyde	UG/KG	1.1	22/48	12	1200	SD02	0.0-0.5	3/16	32	300	A3-SD02	2.0-4.0
gamma-BHC	UG/KG	0.79	6/46	0.82	14	SD14	0.5-1.0	2/16	1.8	2.1	A3-SD02	2.0-4.0
gamma-Chlordane	UG/KG	2	26/50	2.4	120	SPD B2	0.0-0.5	2/16	6.5	14	A3-SD06	2.0-4.0
Heptachlor	UG/KG	0.71	2/45	0.89	1.5	SD06	0.0-0.5	0/16				
Heptachlor Epoxide	UG/KG	1.1	13/47	1.4	19.5	A3-SD05	0.0-2.0	0/16				
Methoxychlor	UG/KG	6.8	3/46	41	260	SD01	0.0-0.5	0/16				
PCB CONGENERS												
101 (2 2'4 5 5') / 90	UG/KG		2/2	28	37	SD13	0.0-0.0	0/0				
138 (2,2',3,4,4',5)	UG/KG		2/2	45	67	SD13	0.0-0.0	0/0				
15 (4 4')	UG/KG		8/8	0.42	10	A3SD10; SD01	0.0-0.0; 0.0 0.0	0/0				
153 (2,2',4,4',5,5')	UG/KG		2/2	110	250	SD13	0.0-0.0	0/0				
156/157 (2 3 3'4 4'5/2 3 3' 4 4'5')	UG/KG		8/8	1.4	13	A3SD10	0.0-0.0	0/0				
18 (2 2'5) / 30	UG/KG		2/2	6.3	11	SD13	0.0-0.0	0/0				
187 (2,2',3,4',5,5',6)	UG/KG		2/2	590	1400	SD13	0.0-0.0	0/0				
195 (2,2',3,3',4,4',5,6)	UG/KG		2/2	55	110	SD13	0.0-0.0	0/0				
2,2',5,5'-Tetrachlorobiphenyl	UG/KG		2/2	30	38	SD13	0.0-0.0	0/0				
3 (4)	UG/KG		8/7	0.086	1.7	SD01	0.0-0.0	0/0				
44 (2,2'3,5')	UG/KG		2/2	2.3	3.4	SD13	0.0-0.0	0/0				
66 (2,3'4,4')	UG/KG		2/2	11	17	SD13	0.0-0.0	0/0				
8 (2,4)	UG/KG		2/2	1.9	2.9	SD13	0.0-0.0	0/0				
PCB Congeners, Total	UG/KG		8/8	1500	30000	A3SD10	0.0-0.0	0/0				
2',3,4,4',5-Pentachlorobiphenyl (123)	UG/KG		4/6	0.17	43.4	A3-SD05	0.0-2.0	1/1	1.61	1.61	A3-SD05	2.0-4.0
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	UG/KG		2/2	600	1100	SD13	0.0-0.0	0/0				
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	UG/KG		9/9	8.8	1020	A3-SD05	0.0-2.0	0/1				
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	UG/KG		8/9	160	2800	A3SD10	0.0-0.0	0/1				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	UG/KG		9/9	1	13	A3SD10	0.0-0.0	0/1				
2,3',4,4',5-Pentachlorobiphenyl (118)	UG/KG		9/9	5.2	65	A3SD10	0.0-0.0	0/1				
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	UG/KG		1/1	8.87	8.87	A3-SD05	0.0-2.0	0/1				

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STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	UG/KG		6/8	1.1	15	A3SD10	0.0-0.0	0/0				
2,3,3',4,4',5-Hexachlorobiphenyl (156)	UG/KG		1/1	42.2	42.2	A3-SD05	0.0-2.0	0/1				
2,3,3',4,4'-Pentachlorobiphenyl (105)	UG/KG		8/9	2	25	A3SD10	0.0-0.0	1/1	0.209	0.209	A3-SD05	2.0-4.0
2,3,4,4',5-Pentachlorobiphenyl (114)	UG/KG		9/9	0.11	108	A3-SD05	0.0-2.0	1/1	0.565	0.565	A3-SD05	2.0-4.0
2,4,4'-Trichlorobiphenyls (28)	UG/KG		8/8	1.4	37	SD01	0.0-0.0	0/0				
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	UG/KG		9/4	1.1	110	SD01	0.0-0.0	0/1				
3,3',4,4',5-Pentachlorobiphenyl (126)	UG/KG		5/3	0.24	3.8	A3SD10	0.0-0.0	0/1				
3,3',4,4'-Tetrachlorobiphenyl (77)	UG/KG		9/8	0.3	8.01	A3-SD05	0.0-2.0	0/1				
Decachlorobiphenyl (209)	UG/KG		9/9	18	500	A3SD10	0.0-0.0	0/1				
Total Dichlorobiphenyls	UG/KG		9/8	1.4	93.5	A3-SD05	0.0-2.0	1/1	0.444	0.444	A3-SD05	2.0-4.0
Total Heptachlorobiphenyls	UG/KG		9/9	580	13000	A3SD10	0.0-0.0	0/1				
Total Hexachlorobiphenyls	UG/KG		9/4	130	1900	A3SD10; SD01	0.0-0.0; 0.0 0.0	0/1				
Total Monochlorobiphenyls	UG/KG		9/8	0.24	5.1	SD01	0.0-0.0	1/1	0.0229	0.0229	A3-SD05	2.0-4.0
Total Nonachlorobiphenyls	UG/KG		9/9	300	6700	A3SD10	0.0-0.0	0/1				
Total Octachlorobiphenyls	UG/KG		9/9	300	6300	A3SD10	0.0-0.0	0/1				
Total Pentachlorobiphenyls	UG/KG		9/4	52	995	A3-SD05	0.0-2.0	0/1				
Total Tetrachlorobiphenyls	UG/KG		9/8	28	662	A3-SD05	0.0-2.0	1/1	1.16	1.16	A3-SD05	2.0-4.0
Total Trichlorobiphenyls	UG/KG		9/9	8.2	404	A3-SD05	0.0-2.0	1/1	1.97	1.97	A3-SD05	2.0-4.0
DIOXIN/FURANS												
Total Chlorodibenzo-p-dioxins	UG/KG		8/8	1.18636	4.0336	SD13	0.0-0.0	0/0				
Total Chlorodibenzo-p-furans	UG/KG		8/8	1.281	19.38	A3SD10	0.0-0.0	0/0				
Total Dioxins	UG/KG		8/8	5.70639	31.45238	A3SD10	0.0-0.0	0/0				
1,2,3,4,6,7,8-HpCDD	UG/KG	0.11	36/53	0.11017	3.1	A3-SD02	0.0-2.0	2/11	0.206	1.5	A3-SD02	2.0-4.0
1,2,3,4,6,7,8-HpCDF	UG/KG	0.043	38/53	0.04802	7.16	A3-SD02	0.0-2.0	3/12	0.0548	5.81	A3-SD02	2.0-4.0
1,2,3,4,7,8,9-HpCDF	UG/KG	0.0041	17/53	0.0092	0.15	A3-SD02	0.0-2.0	2/11	0.0218	0.0993	A3-SD02	2.0-4.0
1,2,3,4,7,8-HxCDD	UG/KG	0.0029	12/52	0.00875	0.0274	A3-SD02	0.0-2.0	1/11	0.0124	0.0124	A3-SD02	2.0-4.0
1,2,3,4,7,8-HxCDF	UG/KG	0.0024	40/53	0.00319	5.51	A3-SD02	0.0-2.0	3/11	0.0193	4.05	A3-SD02	2.0-4.0
1,2,3,6,7,8-HxCDD	UG/KG	0.0059	15/53	0.02094	0.152	A3-SD02	0.0-2.0	2/11	0.0103	0.0687	A3-SD02	2.0-4.0
1,2,3,6,7,8-HxCDF	UG/KG	0.0018	35/53	0.00299	2.24	A3-SD02	0.0-2.0	3/11	0.0069	1.41	A3-SD02	2.0-4.0
1,2,3,7,8,9-HxCDD	UG/KG	0.0037	14/52	0.00377	0.12	A3-SD02	0.0-2.0	2/11	0.00482	0.0268	A3-SD02	2.0-4.0
1,2,3,7,8,9-HxCDF	UG/KG	0.0029	33/52	0.0048	0.68902	SD21	0.0-0.5	1/11	0.00319	0.00319	A3-SD03	2.0-4.0

TABLE 4-13
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RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
1,2,3,7,8-PeCDD	UG/KG	0.0013	8/52	0.00769	0.0308	A3-SD02	0.0-2.0	2/11	0.00195	0.0129	A3-SD02	2.0-4.0
1,2,3,7,8-PeCDF	UG/KG	0.0018	26/53	0.00301	4.42	A3-SD02	0.0-2.0	3/11	0.0106	2.78	A3-SD02	2.0-4.0
2,3,4,6,7,8-HxCDF	UG/KG	0.0022	7/44	0.010605	3.7	A3-SD02	0.0-2.0	3/11	0.0121	2.55	A3-SD02	2.0-4.0
2,3,4,7,8-PeCDF	UG/KG	0.0017	34/45	0.00203	7.86	A3-SD02	0.0-2.0	4/11	0.00242	4.92	A3-SD02	2.0-4.0
2,3,7,8-TCDD	UG/KG	0.00037	3/44	0.00164	0.00936	A3-SD02	0.0-2.0	2/11	0.00102	0.00406	A3-SD02	2.0-4.0
2,3,7,8-TCDF	UG/KG	0.0042	35/45	0.00453	6.5	A3-SD02	0.0-2.0	4/12	0.01	4.59	A3-SD02	2.0-4.0
OCDD	UG/KG	1.6	34/53	1.70459	28.1	SD09W	0.0-0.5	2/12	1.691	7.3	A3-SD02	2.0-4.0
OCDF	UG/KG	0.12	28/53	0.14019	4.18	A3SD10	0.0-0.0	2/11	0.252	2.2	A3-SD02	2.0-4.0
Total HpCDD	UG/KG	0.26	30/53	0.28144	5.49	A3-SD02	0.0-2.0	2/12	0.423	2.62	A3-SD02	2.0-4.0
Total HpCDF	UG/KG	0.23	34/53	0.24052	8.61	A3-SD02	0.0-2.0	2/12	1.525	6.85	A3-SD02	2.0-4.0
Total HxCDD	UG/KG	0.025	16/52	0.10449	1.26	A3-SD02	0.0-2.0	2/12	0.0445	0.55	A3-SD02	2.0-4.0
Total HxCDF	UG/KG	0.26	32/52	0.26393	25.5	A3-SD02	0.0-2.0	2/12	2.475	16	A3-SD02	2.0-4.0
Total PeCDD	UG/KG	0.0013	12/52	0.00932	6.06	SD08W; SD09W	0.0-0.5; 0.0-0.5	3/12	0.00307	0.0289	A3-SD02	2.0-4.0
Total PeCDF	UG/KG	0.4	27/53	0.416	21.3	A3-SD02	0.0-2.0	2/12	3.852	16.9	A3-SD02	2.0-4.0
Total TCDD	UG/KG	0.0028	21/52	0.0031	0.08042	SD16	0.0-0.5	2/12	0.00406	0.013	SPDA E360,S250	4.3-5.7
Total TCDF	UG/KG	0.25	26/53	0.26964	10.9	A3-SD02	0.0-2.0	2/12	0.864	7.88	A3-SD02	2.0-4.0
Toxicity Equivalency	UG/KG		53/53	0.0011587	6.123456	A3-SD02	0.0-2.0	12/12	0.001375	3.962039	A3-SD02	2.0-4.0
Dibenzofuran	UG/KG		8/8	0.089	1.7	SD14	0.0-0.0	0/0				
METALS												
Aluminum	MG/KG	11500	32/59	11500	24300	A3-SD04	0.0-2.0	8/16	12300	19600	HU171A N1124,W149	3.5-5.0
Antimony	MG/KG	2.4	4/55	3.2	6.7	A3-SD01	0.0-2.0	1/16	13	13	A3-SD01	2.0-4.0
Arsenic	MG/KG	7.4	33/59	7.9	23.9	A3SD10	0.0-0.0	7/16	7.9	16.3	A3-SD01	2.0-4.0
Barium	MG/KG	32.4	55/59	36.3	11800	A3-SD02	0.0-2.0	10/16	38.8	12300	A3-SD02	2.0-4.0
Beryllium	MG/KG	0.45	25/59	0.51	1.4	HU201A N1270,W160	1.6-2.4	12/15	0.53	1.4	HU171A N1124,W149	3.5-5.0
Cadmium	MG/KG	0.31	32/57	0.62	22.5	SD08W	0.0-0.5	4/16	1.8	16.8	A3-SD01	2.0-4.0
Calcium	MG/KG	2030	46/59	2130	9270	SD02	0.5-1.0	8/16	2360	14600	A3-SD01	2.0-4.0
Chromium	MG/KG	60.8	33/59	64.8	528	SPD B2	0.0-0.5	3/16	159	730	A3-SD01	2.0-4.0

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			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
Cobalt	MG/KG	8.7	38/59	8.8	33.3	SD14	0.5-1.0	8/16	9.8	25.4	A3-SD02	2.0-4.0
Copper	MG/KG	161	52/60	163	21000	A3-SD02	0.0-2.0	7/21	210	18800	A3-SD02	2.0-4.0
Iron	MG/KG	22100	36/59	22400	57000	SD13	0.0-0.5	7/16	22200	45000	A3-SD04	2.0-4.0
Lead	MG/KG	71.8	103/108	71.9	22900	A3-SD02	0.0-2.0	31/46	90	19400	A3-SD02	2.0-4.0
Magnesium	MG/KG	6250	42/59	6370	92220	SD16	0.0-0.5	6/16	7450	42000	A3-SD02	2.0-4.0
Manganese	MG/KG	206	44/59	212	1870	SD16	0.0-0.5	7/16	220	589	HU35A N408,W198	2.6-3.0
Mercury	MG/KG	0.62	13/59	0.64	2.4	SD14	0.5-1.0	2/16	1.8	1.8	A3-SD01; HU171A N1124,W149	2.0-4.0; 3.5-5.0
Nickel	MG/KG	20.4	52/59	20.8	506	SD14	0.5-1.0	7/16	21.7	269	A3-SD02	2.0-4.0
Potassium	MG/KG	2820	13/59	2860	4330	A3-SD08	0.0-2.0	5/16	2870	3940	HU35A N408,W198	2.6-3.0
Selenium	MG/KG	0.94	9/56	1.1	3.5	SD14	0.0-0.0	0/16				
Silver	MG/KG	0.53	12/56	0.65	3.4	SPDA E360,S250	0.0-0.3	3/16	0.67	2.9	A3-SD01	2.0-4.0
Sodium	MG/KG	8320	12/59	8610	19400	SD04	0.0-0.5	1/16	9320	9320	A3-SD04	2.0-4.0
Thallium	MG/KG	1.1	3/55	1.9	3.9	A3-SD01	0.0-2.0	3/16	1.6	3.4	A3-SD05	2.0-4.0
Vanadium	MG/KG	36	37/59	36.4	157	SD16	0.0-0.5	5/16	36.8	62.2	A3-SD01	2.0-4.0
Zinc	MG/KG	134	50/59	141	4800	A3-SD02	0.0-2.0	5/16	257	2300	A3-SD02	2.0-4.0
METALS (SPLP)												
Aluminum	UG/L		0/0					1/1	45100	45100	A3-SB03	4.0-6.0
Arsenic	UG/L		0/0					1/1	10.4	10.4	A3-SB03	4.0-6.0
Barium	UG/L		0/0					1/1	80.1	80.1	A3-SB03	4.0-6.0
Beryllium	UG/L		0/0					1/1	5	5	A3-SB03	4.0-6.0
Cadmium	UG/L		0/0					1/1	1.6	1.6	A3-SB03	4.0-6.0
Calcium	UG/L		0/0					1/1	31500	31500	A3-SB03	4.0-6.0
Chromium	UG/L		0/0					1/1	30.1	30.1	A3-SB03	4.0-6.0
Cobalt	UG/L		0/0					1/1	11.3	11.3	A3-SB03	4.0-6.0
Copper	UG/L		0/0					1/1	1540	1540	A3-SB03	4.0-6.0
Iron	UG/L		0/0					1/1	10400	10400	A3-SB03	4.0-6.0
Lead	UG/L		0/0					1/1	734	734	A3-SB03	4.0-6.0

TABLE 4-13
AREA A-3, SEDIMENT CONTAMINANTS EXCEEDING BACKGROUND [1]
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. [2]	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection[3]	Min.	Max.	Location	Depth (ft bgs)
Magnesium	UG/L		0/0					1/1	20500	20500	A3-SB03	4.0-6.0
Manganese	UG/L		0/0					1/1	188	188	A3-SB03	4.0-6.0
Mercury	UG/L		0/0					1/1	0.36	0.36	A3-SB03	4.0-6.0
Nickel	UG/L		0/0					1/1	39.4	39.4	A3-SB03	4.0-6.0
Potassium	UG/L		0/0					1/1	6280	6280	A3-SB03	4.0-6.0
Sodium	UG/L		0/0					1/1	34000	34000	A3-SB03	4.0-6.0
Vanadium	UG/L		0/0					1/1	138	138	A3-SB03	4.0-6.0
Zinc	UG/L		0/0					1/1	274	274	A3-SB03	4.0-6.0
SEM/SVS												
Acid Volatile Sulfide	UMO/G		13/13	0.68	163.97	SD23	0.0-0.0	0/0				
SEM-AVS	UMO/G		6/13	6.2563433	39.02958	SD21	0.0-0.5	0/0				
SEM/AVS	RATIO		13/13	0.0563595	37.44	SD23	0.0-0.5	0/0				
Simultaneously Extracted Metal	UMO/G		13/13	5.3604636	71.02958	SD21	0.0-0.5	0/0				
Cadmium	UMO/G		13/13	0.006722	0.1764	SD20-04	0.0-0.5	0/0				
Copper	UMO/G		13/13	0.0023607	28.62755	SD21	0.0-0.5	0/0				
Lead	UMO/G		13/13	0.91627	30.98764	SD21	0.0-0.5	0/0				
Nickel	UMO/G		13/13	0.13298	1.1223	SD21	0.0-0.5	0/0				
Zinc	UMO/G		13/13	2.4646032	14.62822	SD20-04	0.0-0.5	0/0				
ASBESTOS												
Asbestos	%	1	20/63	1	90	SPD F3	0.0-0.5	4/44	1	15	A3-SD01; A3-SD02	2.0-4.0; 2.0-4.0
TOTAL ORGANIC CARBON												
Total Organic Carbon	MG/KG		16/16	11900	1020000	A3-SD08	0.0-2.0	34/34	87.5	1320000	A3-SD01	5.0-9.0

Notes:
Avg - Average
Conc'n - Concentration
Freq - Frequency
ft bgs - feet below ground surface
NA - Not Available
PAH - Polynuclear Aromatic Hydrocarbon
Pest/PCB - Pesticide/PCB
SVOC - Semivolatile Organic Compound
TOC - Total Organic Carbon
VOC - Volatile Organic Compound

(1) - Contaminants/parameters listed include those detected above average background concentrations. Where no background data are available, the list was expanded to include thosecontaminants/parameters detected in the media of concern.

(2) - Value was based on arithmetic average of positive values for detected parameters and half the detection limits for the

non-detected parameters in background samples. Where no background data are available (denoted as NA), the sample data was evaluated for comparison to the analytical detection limits. In the case of asbestos, the sample data was evaluated versus a lower limit of 1%, based on the definition of friable asbestos material given in the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) 40 CFR 61.141, July 1, 1994.

(3) - Frequency of Detection - number of results > average background/number of results > detection limit

TABLE 4-14
AREA A-3, SURFACE WATER CONTAMINANTS EXCEEDING BACKGROUND [1]
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

Parameter	Conc. Units	Avg Bkg. Conc. [2]	SURFACE			
			Freq. of Detection [3]	Concentration Range		Maximum Conc. Location
				Min.	Max.	
VOCs						
1,1,1-Trichloroethane	UG/L	5	14/18	6	160	SD20-04
1,1-Dichloroethane	UG/L	5	10/18	6	29	SD23
1,1-Dichloroethene	UG/L	5	10/18	13	50	04
1,2-Dichloroethene (total)	UG/L	5	11/18	8	81	SD23
Trichloroethene	UG/L	5	11/18	8	78	SD23
Vinyl Chloride	UG/L	5	5/18	6	12	SD06
PCBs						
Aroclor, Total	UG/L		2/18	2.322	2.48	SD13
Aroclor-1262	UG/L	0.34	0/18			
PESTICIDES						
beta-BHC	UG/L	0.025	1/18	0.033	0.033	SD01
METALS						
Aluminum	UG/L	156	5/18	186	2180	SD13
Antimony	UG/L	4.4	2/17	6	20.8	SD13
Arsenic	UG/L	14.3	2/18	66.9	75.1	SD22
Barium	UG/L	17.1	16/18	18.2	173	SD13
Chromium	UG/L	5	9/18	8.8	20.5	SD13
Copper	UG/L	19.8	4/18	25.4	156	SD13
Iron	UG/L	698	4/18	734	4500	SD13
Lead	UG/L	3.9	5/18	5.5	147	SD13
Manganese	UG/L	135	16/18	196	2910	SD23
Mercury	UG/L	0.15	7/18	0.3	3.3	SD12
Nickel	UG/L	4.6	1/18	11.7	11.7	SD13
Sodium	UG/L	6920000	1/18	7600000	7600000	SD14
Vanadium	UG/L	2.1	4/18	2.8	9.8	SD13
Zinc	UG/L	30.1	7/16	38.3	127	SD13

TABLE 4-14
AREA A-3, SURFACE WATER CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

Notes:

Avg -	Average	PAH -	Polynuclear Aromatic Hydrocarbon
Conc'n -	Concentration	Pest/PCB -	Pesticide/PCB
Freq -	Frequency	SVOC -	Semivolatile Organic Compound
ft bgs -	feet below ground surface	TOC -	Total Organic Carbon
NA -	Not Available	VOC -	Volatile Organic Compound

(1) -Contaminants/parameters listed include those detected above average background concentrations. Where no background data are available, the list was expanded to include thosecontaminants/parameters detected in the media of concern.

(2) -Value was based on arithmetic average of positive values for detected parameters and half the detection limits for the non-detected parameters in background samples. Where no background data are available (denoted as NA), the sample data was evaluated for comparison to the analytical detection limits. In the case of asbestos, the sample data was evaluated versus a lower limit of 1%, based on the definition of friable asbestos material given in the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) 40 CFR 61.141, July 1, 1994.

(3) -Frequency of Detection - number of results > average background/number of results > detection limit

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

Parameter	Conc. Units	Avg Bkg. Conc. (2)	SURFACE					SUBSURFACE				
			Freq. of Detection(3)	Concentration Range		Maximum Conc.		Freq. of Detection(3)	Concentration Range		Maximum Conc.	
				Min.	Max.	Location	Depth (ft bgs)		Min.	Max.	Location	Depth (ft bgs)
VOCs												
1,1,1-Trichloroethane	UG/KG		1/7	9	9	SPDA E275,S130	0.4-1.5	0/6				
1,1,2-Trichloroethane	UG/KG		0/7					1/6	7	7	HU181A N1180,W148	3.0-4.0
1,2-Dichloroethane	UG/KG		0/7					1/6	7	7	HU181A N1180,W148	3.0-4.0
2-Butanone	UG/KG		0/7					1/6	59	59	HU161A N1050,W154	3.0-5.0
2-Hexanone	UG/KG		0/7					1/6	11	11	HU181A N1180,W148	3.0-4.0
4-Methyl-2-Pentanone	UG/KG		0/7					1/6	9	9	HU181A N1180,W148	3.0-4.0
Acetone	UG/KG		0/7					2/6	210	220	A3-SB02	14.0-16.0
Carbon Disulfide	UG/KG		0/7					2/6	2	5	HU161A N1050,W154	3.0-5.0
Chlorobenzene	UG/KG		1/7	4	4	HU103A N720,W258	0.0-0.3	0/6				
Methylene Chloride	UG/KG		0/7					1/6	7	7	A3-SB02	14.0-16.0
Toluene	UG/KG		0/7					3/7	5	7	HU181A N1180,W148; SPDA E275,S130	3.0-4.0; 9.5-10.0
Total Xylenes	UG/KG		0/7					1/6	3	3	HU181A N1180,W148	3.0-4.0
Trichloroethene	UG/KG		0/7					1/6	7	7	HU181A N1180,W148	3.0-4.0
SVOCs												
Total PAH	UG/KG		8/8	201	80580	SPDA E325,S38	0.0-1.0	7/9	134	47170	A3-SB02	6.0-8.0
2,4-Dimethylphenol	UG/KG		1/8	760	760	SPDA E275,S130	0.4-1.5	2/9	280	11000	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. (2)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)
2-Methylphenol	UG/KG		1/8	295	295	SPDA E275,S130	0.4-1.5	1/9	390	390	A3-SB02	6.0-8.0
4-Methylphenol	UG/KG		1/8	295	295	SPDA E275,S130	0.4-1.5	2/9	47	850	A3-SB02	6.0-8.0
Carbazole	UG/KG		4/8	67	670	SPDA E325,S38	0.0-1.0	5/9	52	1200	A3-SB02	6.0-8.0
N-Nitroso-diphenylamine	UG/KG		0/8					2/9	540	2900	A3-SB02	6.0-8.0
Phenol	UG/KG		1/7	1700	1700	SPDA E275,S130	0.4-1.5	1/6	2000	2000	SPDA E275,S130	9.5-10.0
2-Methylnaphthalene	UG/KG		2/8	20	310	SPDA E275,S130	0.4-1.5	4/9	86	1000	A3-SB02	6.0-8.0
Acenaphthene	UG/KG		2/8	130	240	SPDA E325,S38	0.0-1.0	5/9	33	990	A3-SB02	6.0-8.0
Acenaphthylene	UG/KG		4/8	120	460	SPDA E325,S38	0.0-1.0	4/9	58	430	HU161A N1050,W154	3.0-5.0
Anthracene	UG/KG		4/8	120	2000	SPDA E325,S38	0.0-1.0	5/9	130	2400	A3-SB02	6.0-8.0
Benzo(a)anthracene	UG/KG		5/8	680	6700	SPDA E325,S38	0.0-1.0	6/9	21	2900	A3-SB02	6.0-8.0
Benzo(a)pyrene	UG/KG		8/8	24	5700	SPDA E325,S38	0.0-1.0	5/9	650	2400	A3-SB02	6.0-8.0
Benzo(b)fluoranthene	UG/KG		8/8	22	6200	SPDA E325,S38	0.0-1.0	6/9	24	2800	HU161A N1050,W154	3.0-5.0
Benzo(g,h,i)perylene	UG/KG		6/8	295	2600	SPDA E325,S38	0.0-1.0	5/9	430	1900	A3-SB02	6.0-8.0
Benzo(k)fluoranthene	UG/KG		5/8	28	4700	SPDA E325,S38	0.0-1.0	5/9	560	2000	HU161A N1050,W154	3.0-5.0
Chrysene	UG/KG		8/8	25	7200	SPDA E325,S38	0.0-1.0	7/9	22	3200	A3-SB02	6.0-8.0
Dibenzo(a,h)anthracene	UG/KG		4/8	170	1000	SPDA E325,S38	0.0-1.0	3/9	200	670	HU161A N1050,W154	3.0-5.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

Parameter	Conc. Units	Avg Bkg. Conc. (2)	SURFACE					SUBSURFACE				
			Freq. of Detection(3)	Concentration Range		Maximum Conc.		Freq. of Detection(3)	Concentration Range		Maximum Conc.	
				Min.	Max.	Location	Depth (ft bgs)		Min.	Max.	Location	Depth (ft bgs)
Dibenzofuran	UG/KG		2/8	100	350	SPDA E325,S38	0.0-1.0	4/9	120	770	A3-SB02	6.0-8.0
Fluoranthene	UG/KG		8/8	42	14000	SPDA E325,S38	0.0-1.0	7/9	32	8600	A3-SB02	6.0-8.0
Fluorene	UG/KG		5/8	52	530	SPDA E325,S38	0.0-1.0	5/9	51	1200	A3-SB02	6.0-8.0
Indeno(1,2,3-cd)pyrene	UG/KG		6/8	180	3000	SPDA E325,S38	0.0-1.0	5/9	400	1900	HU161A N1050,W154	3.0-5.0
Naphthalene	UG/KG		2/8	38	40	HU103A N720,W258	0.0-0.3	4/9	130	1400	A3-SB02	6.0-8.0
Phenanthrene	UG/KG		7/8	22	7900	SPDA E325,S38	0.0-1.0	7/9	22	8800	A3-SB02	6.0-8.0
Pyrene	UG/KG		8/8	38	18000	SPDA E325,S38	0.0-1.0	7/9	33	5400	A3-SB02	6.0-8.0
bis(2-Ethylhexyl)phthalate	UG/KG		1/8	54000	54000	SD03	0.0-0.5	0/9				
Butylbenzylphthalate	UG/KG		2/8	41	290	HU103A N720,W258	0.0-0.3	0/9				
Di-n-Butylphthalate	UG/KG		3/8	24	94	SPDA E275,S130	0.4-1.5	5/9	26	1300	A3-SB02	6.0-8.0
Di-n-octylphthalate	UG/KG		0/8					1/9	89	89	HU181A N1180,W148	3.0-4.0
Diethylphthalate	UG/KG		1/8	295	295	SPDA E275,S130	0.4-1.5	0/9				
PCBs												
Aroclor, Total	UG/KG	270	9/11	1025	85380	SPDA E275,S130	0.4-1.5	7/9	368	89400	A3-SB02	6.0-8.0
Aroclor-1248	UG/KG	46	1/9	1400	1400	SPDA E275,S130	0.4-1.5	2/7	310	440	SPDA E275,S130	9.5-10.0
Aroclor-1254	UG/KG	46	2/9	100	1200	SPDA E275,S130	0.4-1.5	1/7	330	330	SPDA E275,S130	3.1-3.7
Aroclor-1262	UG/KG	37	9/9	140	52000	SPD H3	0.0-0.5	6/8	77	35000	A3-SB02	6.0-8.0
Aroclor-1268	UG/KG	46	5/9	260	37000	SPDA E275,S130	0.4-1.5	6/8	130	52000	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. (2)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)
PESTICIDES												
4,4'-DDE	UG/KG	17	1/9	67	67	HU103A N720,W258	0.0-0.3	0/6				
4,4'-DDT	UG/KG	29	2/7	320	4600	SPD G4	0.0-0.5	2/4	37	110	A3-SB02	6.0-8.0
alpha-Chlordane	UG/KG	4.9	2/9	24	28	SD03	0.0-0.5	1/8	19	19	HU181A N1180,W148	3.0-4.0
Endosulfan I	UG/KG	4.5	1/7	30	30	SPDA E275,S130	0.4-1.5	0/5				
Endosulfan II	UG/KG	4.7	1/9	11	11	SPBG2C+26 7	0.0-0.5	0/7				
Endrin	UG/KG	4.8	1/8	14	14	SD03	0.0-0.5	1/6	92	92	A3-SB02	6.0-8.0
Endrin Aldehyde	UG/KG	4.6	1/9	7.3	7.3	SD03	0.0-0.5	0/5				
Endrin Ketone	UG/KG	5.3	1/9	2000	2000	SPDA E275,S130	0.4-1.5	2/7	7.5	8.9	A3-SB01	4.0-6.0
gamma-Chlordane	UG/KG	2.7	4/8	3.2	20	SD03	0.0-0.5	2/8	19	38	A3-SB02	6.0-8.0
Heptachlor	UG/KG	2.2	1/8	2.8	2.8	A3-SB01	0.0-2.0	0/7				
Heptachlor Epoxide	UG/KG	2.3	2/9	2.5	8	SD03	0.0-0.5	0/7				
DIOXIN/FURANS												
1,2,3,4,6,7,8-HpCDD	UG/KG		5/7	0.049	0.5	HU103A N720,W258	0.0-0.3	3/7	0.568	4.153	A3-SB02	6.0-8.0
1,2,3,4,6,7,8-HpCDF	UG/KG		5/7	0.047	2.834	SPDA E275,S130	0.4-1.5	4/7	0.4	29.425	A3-SB02	6.0-8.0
1,2,3,4,7,8,9-HpCDF	UG/KG		2/7	0.00333	0.051	SPDA E275,S130	0.4-1.5	3/7	0.02	0.227	A3-SB02	6.0-8.0
1,2,3,4,7,8-HxCDD	UG/KG		0/7					2/7	0.003	0.0302	A3-SB02	6.0-8.0
1,2,3,4,7,8-HxCDF	UG/KG		4/7	0.012	3.136	SPDA E275,S130	0.4-1.5	3/7	1.456	12.024	A3-SB02	6.0-8.0
1,2,3,6,7,8-HxCDD	UG/KG		2/7	0.006	0.012	SPDA E275,S130	0.4-1.5	3/7	0.02	0.175	A3-SB02	6.0-8.0
1,2,3,6,7,8-HxCDF	UG/KG		4/7	0.004	0.692	SPDA E275,S130	0.4-1.5	2/7	0.767	3.887	A3-SB02	6.0-8.0
1,2,3,7,8,9-HxCDD	UG/KG		1/7	0.009	0.009	SPDA E275,S130	0.4-1.5	2/7	0.014	0.167	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. (2)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)
1,2,3,7,8,9-HxCDF	UG/KG		1/7	0.00897	0.00897	SD03	0.0-0.5	1/7	0.0117	0.0117	A3-SB02	6.0-8.0
1,2,3,7,8-PeCDD	UG/KG		0/7					1/7	0.0372	0.0372	A3-SB02	6.0-8.0
1,2,3,7,8-PeCDF	UG/KG		4/7	0.006	1.516	SPDA E275,S130	0.4-1.5	3/7	0.444	6.777	A3-SB02	6.0-8.0
2,3,4,6,7,8-HxCDF	UG/KG		3/7	0.007	1.286	SPDA E275,S130	0.4-1.5	3/7	0.7	6.918	A3-SB02	6.0-8.0
2,3,4,7,8-PeCDF	UG/KG		4/7	0.013	2.89	SPDA E275,S130	0.4-1.5	3/7	0.945	13.003	A3-SB02	6.0-8.0
2,3,7,8-TCDD	UG/KG		0/7					1/7	0.00793	0.00793	A3-SB02	6.0-8.0
2,3,7,8-TCDF	UG/KG		4/7	0.02083	3.306	SPDA E275,S130	0.4-1.5	3/7	0.944	9.93	A3-SB02	6.0-8.0
OCDD	UG/KG		7/7	0.893	4.7	HU103A N720,W258	0.0-0.3	4/7	2.46	16	A3-SB02	6.0-8.0
OCDF	UG/KG		3/7	0.05378	0.524	SPDA E275,S130	0.4-1.5	4/7	0.433	3.637	A3-SB02	6.0-8.0
Total HpCDD	UG/KG		5/7	0.103	0.727	HU103A N720,W258	0.0-0.3	3/7	1.119	7.051	A3-SB02	6.0-8.0
Total HpCDF	UG/KG		5/7	0.071	3.191	SPDA E275,S130	0.4-1.5	4/7	0.422	32.044	A3-SB02	6.0-8.0
Total HxCDD	UG/KG		3/7	0.01	0.029	SPDA E275,S130; SPDA E325,S38	0.4-1.5; 0.0-1.	3/7	0.017	0.372	A3-SB02	6.0-8.0
Total HxCDF	UG/KG		4/7	0.077	9.808	SPDA E275,S130	0.4-1.5	2/6	10.49	49.227	A3-SB02	6.0-8.0
Total PeCDD	UG/KG		0/7					2/7	0.003	0.0372	A3-SB02	6.0-8.0
Total PeCDF	UG/KG		4/7	0.094	17.455	SPDA E275,S130	0.4-1.5	3/7	4.921	45.782	A3-SB02	6.0-8.0
Total TCDD	UG/KG		1/7	0.038	0.038	SPDA E275,S130	0.4-1.5	3/7	0.00157	0.016	SPDA E275,S130	9.5-10.0
Total TCDF	UG/KG		4/7	0.061	8.398	SPDA E275,S130	0.4-1.5	3/7	2.31	14.926	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. (2)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)
Toxicity Equivalency	UG/KG		7/7	0.0140559	2.4019617	SPDA E275,S130	0.4-1.5	7/7	0.24211	10.5397837	A3-SB02	6.0-8.0
METALS												
Aluminum	MG/KG	12900	1/11	16200	16200	HU207A N1335,W145	1.0-1.8	0/9				
Antimony	MG/KG	2.9	1/11	3.2	3.2	A3-SB01	0.0-2.0	1/9	6.5	6.5	A3-SB02	6.0-8.0
Arsenic	MG/KG	5.7	8/11	7.2	20.7	HU121A N915,W215	1.3-2.5	5/9	5.9	13.3	HU103A N720,W258	2.0-2.5
Barium	MG/KG	57.5	7/11	93.1	21000	SPDA E275,S130	0.4-1.5	5/9	59.9	11700	A3-SB02	6.0-8.0
Beryllium	MG/KG	0.72	6/11	0.78	1.2	HU103A N720,W258; HU207A N1335,W145	0.0-0.3; 1.0-1.	5/9	0.87	1.5	HU263A N1695,W192	7.5-8.0
Cadmium	MG/KG	0.4	1/11	0.92	0.92	A3-SB01	0.0-2.0	2/9	2.4	6.1	HU181A N1180,W148	3.0-4.0
Calcium	MG/KG	1600	7/11	1600	30700	A3-SB01	0.0-2.0	5/9	1720	9330	SPDA E275,S130	3.1-3.7
Chromium	MG/KG	17	10/11	18.4	198	SPD G4	0.0-0.5	6/9	19.8	227	A3-SB02	6.0-8.0
Cobalt	MG/KG	6.3	11/11	6.6	36.4	SPDA E275,S130	0.4-1.5	5/9	7.1	46.8	A3-SB02	6.0-8.0
Copper	MG/KG	28.8	11/12	41.7	34600	SPDA E275,S130	0.4-1.5	7/16	42.3	29600	A3-SB02	6.0-8.0
Iron	MG/KG	16000	8/11	16100	21700	HU207A N1335,W145	1.0-1.8	5/9	16300	28600	HU181A N1180,W148	3.0-4.0
Lead	MG/KG	80.8	109/131	90	26000	SPDA E275,S130	0.4-1.5	84/137	90	35400	A3-SB02	6.0-8.0
Magnesium	MG/KG	3250	9/11	4080	66300	SPD G4	0.0-0.5	5/9	5240	95400	A3-SB02	6.0-8.0
Manganese	MG/KG	306	4/11	309	1310	HU103A N720,W258	0.0-0.3	1/9	472	472	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

Parameter	Conc. Units	Avg Bkg. Conc. (2)	SURFACE					SUBSURFACE				
			Freq. of Detection(3)	Concentration Range		Maximum Conc.		Freq. of Detection(3)	Concentration Range		Maximum Conc.	
				Min.	Max.	Location	Depth (ft bgs)		Min.	Max.	Location	Depth (ft bgs)
Mercury	MG/KG	0.11	5/11	0.16	0.36	SD03	0.0-0.5	5/9	0.18	1.3	HU161A N1050,W154	3.0-5.0
Nickel	MG/KG	12.5	10/11	13.3	499	SPD G4	0.0-0.5	6/9	17.7	580	A3-SB02	6.0-8.0
Potassium	MG/KG	961	9/11	964	2080	SPD G4	0.0-0.5	6/9	1150	2490	HU103A N720,W258	2.0-2.5
Silver	MG/KG	0.51	6/11	0.81	7.6	HU103A N720,W258	0.0-0.3	3/9	2.4	4.3	SPDA E275,S130	9.5-10.0
Sodium	MG/KG	76.4	8/11	112	1420	HU103A N720,W258	0.0-0.3	8/9	142	2180	SPDA E275,S130	9.5-10.0
Thallium	MG/KG	0.37	1/11	1.4	1.4	HU207A N1335,W145	1.0-1.8	2/9	1	1.2	HU181A N1180,W148	3.0-4.0
Vanadium	MG/KG	34.2	7/11	34.3	83.5	SD03	0.0-0.5	2/9	44.9	52.6	SPDA E275,S130	9.5-10.0
Zinc	MG/KG	112	7/11	165	1810	SPD G4	0.0-0.5	5/9	203	4730	A3-SB02	6.0-8.0
METALS (TCLP)												
Barium	UG/L		1/1	7010	7010	SPDA E275,S130	0.4-1.5	0/0				
Cadmium	UG/L		1/1	7.4	7.4	SPDA E275,S130	0.4-1.5	0/0				
Lead	UG/L		1/1	375000	375000	SPDA E275,S130	0.4-1.5	0/0				
METALS (SPLP)												
Aluminum	UG/L		1/1	50900	50900	A3-SB01	0.0-2.0	1/1	18300	18300	A3-SB02	6.0-8.0
Antimony	UG/L		1/1	10.3	10.3	A3-SB01	0.0-2.0	1/1	5.2	5.2	A3-SB02	6.0-8.0
Arsenic	UG/L		1/1	92.2	92.2	A3-SB01	0.0-2.0	1/1	26.9	26.9	A3-SB02	6.0-8.0
Barium	UG/L		1/1	4640	4640	A3-SB01	0.0-2.0	1/1	11500	11500	A3-SB02	6.0-8.0
Beryllium	UG/L		1/1	5.6	5.6	A3-SB01	0.0-2.0	1/1	2	2	A3-SB02	6.0-8.0
Cadmium	UG/L		1/1	17.1	17.1	A3-SB01	0.0-2.0	1/1	22.4	22.4	A3-SB02	6.0-8.0
Calcium	UG/L		1/1	429000	429000	A3-SB01	0.0-2.0	1/1	85400	85400	A3-SB02	6.0-8.0
Chromium	UG/L		1/1	176	176	A3-SB01	0.0-2.0	1/1	286	286	A3-SB02	6.0-8.0
Cobalt	UG/L		1/1	51	51	A3-SB01	0.0-2.0	1/1	121	121	A3-SB02	6.0-8.0
Copper	UG/L		1/1	32700	32700	A3-SB01	0.0-2.0	1/1	131000	131000	A3-SB02	6.0-8.0

TABLE 4-15
AREA A-3, SOIL CONTAMINANTS EXCEEDING BACKGROUND (1)
FINAL REMEDIAL INVESTIGATION REPORT - AREA I
RAYMARK - FERRY CREEK, OU3
STRATFORD, CT

			SURFACE					SUBSURFACE				
				Concentration Range		Maximum Conc.			Concentration Range		Maximum Conc.	
Parameter	Conc. Units	Avg Bkg. Conc. (2)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)	Freq. of Detection(3)	Min.	Max.	Location	Depth (ft bgs)
Iron	UG/L		1/1	57800	57800	A3-SB01	0.0-2.0	1/1	84900	84900	A3-SB02	6.0-8.0
Lead	UG/L		1/1	28300	28300	A3-SB01	0.0-2.0	1/1	603000	603000	A3-SB02	6.0-8.0
Magnesium	UG/L		1/1	26100	26100	A3-SB01	0.0-2.0	1/1	51600	51600	A3-SB02	6.0-8.0
Manganese	UG/L		1/1	2200	2200	A3-SB01	0.0-2.0	1/1	3710	3710	A3-SB02	6.0-8.0
Mercury	UG/L		0/1					1/1	0.25	0.25	A3-SB02	6.0-8.0
Nickel	UG/L		1/1	242	242	A3-SB01	0.0-2.0	1/1	1910	1910	A3-SB02	6.0-8.0
Potassium	UG/L		1/1	6200	6200	A3-SB01	0.0-2.0	0/1				
Selenium	UG/L		1/1	5.5	5.5	A3-SB01	0.0-2.0	0/1				
Sodium	UG/L		1/1	1810	1810	A3-SB01	0.0-2.0	1/1	3980	3980	A3-SB02	6.0-8.0
Thallium	UG/L		1/1	6.5	6.5	A3-SB01	0.0-2.0	1/1	21.9	21.9	A3-SB02	6.0-8.0
Vanadium	UG/L		1/1	377	377	A3-SB01	0.0-2.0	1/1	112	112	A3-SB02	6.0-8.0
Zinc	UG/L		1/1	4050	4050	A3-SB01	0.0-2.0	1/1	59600	59600	A3-SB02	6.0-8.0
ASBESTOS												
Asbestos	%	1	26/124	1	80	SPD G4; SPD H4	0.0-0.5; 0.0-0.5	20/138	1	50	A3-SB02	6.0-8.0

Notes:
Avg - Average
Conc'n - Concentration
Freq - Frequency
ft bgs - feet below ground surface
NA - Not Available
PAH - Polynuclear Aromatic Hydrocarbon
Pest/PCB - Pesticide/PCB
SVOC - Semivolatile Organic Compound
TOC - Total Organic Carbon
VOC - Volatile Organic Compound

(1) - Contaminants/parameters listed include those detected above average background concentrations. Where no background data are available, the list was expanded to include thosecontaminants/parameters detected in the media of concern.

(2) - Value was based on arithmetic average of positive values for detected parameters and half the detection limits for the non-detected parameters in background samples. Where no background data are available (denoted as NA), the sample data was evaluated for comparison to the analytical detection limits. In the case of asbestos, the sample data was evaluated versus a lower limit of 1%, based on the definition of friable asbestos material given in the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) 40 CFR 61.141, July 1, 1994.

(3) - Frequency of Detection - number of results > average background/number of results > detection limit

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) [1]	Federal Soil Screening Level Inhalation (mg/kg) [2]	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) [2]	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) [3]	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) [3]	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) [3]
ASBESTOS						
1,2,3,4,6,7,8-HPCDD	0.00043					
1,2,3,4,6,7,8-HPCDF	0.00043					
1,2,3,4,7,8,9-HPCDF	0.00043					
1,2,3,4,7,8-HXCDD	0.000043					
1,2,3,4,7,8-HXCDF	0.000043					
1,2,3,6,7,8-HXCDD	0.000043					
1,2,3,6,7,8-HXCDF	0.000043					
1,2,3,7,8,9-HXCDD	0.000043					
1,2,3,7,8,9-HXCDF	0.000043					
1,2,3,7,8-PECDD	0.0000086					
1,2,3,7,8-PECDF	0.0000086					
2,3,4,6,7,8-HXCDF	0.000043					
2,3,4,7,8-PECDF	0.000086					
2,3,7,8-TCDD	0.0000043					
2,3,7,8-TCDF	0.000043					
OCDD	0.0043					
OCDF	0.0043					
TOTAL HPCDD						
TOTAL HPCDF						
TOTAL HXCDD						
TOTAL HXCDF						
TOTAL PECDD						
TOTAL PECDF						
TOTAL TCDD						
TOTAL TCDF						
TOXICITY EQUIVALENCY (TEQ)						
ALUMINUM	78000					
ANTIMONY	31		5	27	8200	0.06 [18]
ARSENIC	0.43 [4]	750	29	10	10	0.5 [18]
BARIUM	5500	690000	1600	4700	140000	10 [18]
BERYLLIUM	160	1300	63	2	2	0.04 [18]
CADMIUM	39	1800	8	34	1000	0.05 [18]
CALCIUM						
CHROMIUM	230 [5]	270 [5]	38 [5]	100 [5]	100 [5]	0.5 [6] [18]
COBALT	4700			1000 [15]	2500 [15]	4.2 [18]

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) [1]	Federal Soil Screening Level Inhalation (mg/kg) [2]	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) [2]	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) [3]	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) [3]	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) [3]
COPPER	3100			2500	76000	13 [18]
IRON	23000					
LEAD	400 [13]			500	1000	0.15 [18]
MAGNESIUM						
MANGANESE	1600			1600	47000	0.5 [18] [12]
MERCURY	23 [7]	10	2	20	610	0.02 [18]
NICKEL	1600	13000	130	1400	7500	1 [18]
POTASSIUM						
SELENIUM	390		5	340	10000	0.5 [18]
SILVER	390		34	340	10000	0.36 [18]
SODIUM						
THALLIUM	5.5		0.7	5.4	160	0.05 [18]
VANADIUM	550		6000	470	14000	0.5 [18]
ZINC	23000		12000	20000	610000	50 [18]
1,2,4-TRICHLOROBENZENE	780	3200	5	680	2500 [15]	14
1,2-DICHLOROBENZENE	7000	560	17	500	1000	3.1
1,4-DICHLOROBENZENE	27		2	26	240	15
2,4-DIMETHYLPHENOL	1600		9	1000 [15]	2500 [15]	28
2-METHYLNAPHTHALENE	1600			1000 [15]	2500 [15]	56
2-METHYLPHENOL	3900		15	1000 [15]	2500 [15]	70
3,3'-DICHLOROBENZIDINE	1.4		0.007	1.4	13	0.016
4-BROMOPHENYL PHENYL ETHER				500 [15]	1000 [15]	82
4-CHLORO-3-METHYLPHENOL				NE [20]	NE [20]	NE [20]
4-CHLOROANILINE	310		0.7	270	2500 [15]	5.6
4-METHYLPHENOL	390			340	2500 [15]	7
4-NITROANILINE				200	2500 [15]	4.2
4-NITROPHENOL	630			540	2500 [15]	11
ACENAPHTHENE	4700		570	1000 [15]	2500 [15]	84
ACENAPHTHYLENE				1000	2500	84
ANTHRACENE	23000		12000	1000	2500	400
BENZO(A)ANTHRACENE	0.87		2	1	7.8	1
BENZO(A)PYRENE	0.087		8	1	1	1
BENZO(B)FLUORANTHENE	0.87		5	1	7.8	1
BENZO(G,H,I)PERYLENE				1000 [16]	2500 [16]	40

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) [1]	Federal Soil Screening Level Inhalation (mg/kg) [2]	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) [2]	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) [3]	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) [3]	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) [3]
BENZO(K)FLUORANTHENE	8.7		49	8.4	78	1
BIS(2-ETHYLHEXYL)PHTHALATE	46	31000	3600	44	410	11
BUTYLBENZYL PHTHALATE	16000	930	930	1000	2500	200
CARBAZOLE	32		0.6	31	290	0.36
CHRYSENE	87		160	84	780	0.96
DI-N-BUTYL PHTHALATE	7800	2300	2300	1000	2500	140
DI-N-OCTYL PHTHALATE	1600	10000	10000	1000	2500	20
DIBENZO(A,H)ANTHRACENE	0.087		2	0.084	0.78	0.00096
DIBENZOFURAN	310			270	2500 [15]	5.6
DIETHYL PHTHALATE	63000	2000	470	1000 [15]	2500 [15]	1100
DIMETHYL PHTHALATE	780000			1000 [15]	2500 [15]	14000
FLUORANTHENE	3100		4300	1000	2500	56
FLUORENE	3100		560	1000	2500	56
HEXACHLOROBENZENE	0.4	1	2	1	3.6	1
INDENO(1,2,3-CD)PYRENE	0.87		14	0.84	7.8	0.0096
N-NITROSO-DI-N-PROPYLAMINE	0.091		0.00005	0.088	0.82	0.001
N-NITROSODIPHENYLAMINE	130		1	130	1200	1.4
NAPHTHALENE	1600		84	1000	2500	56
PENTACHLOROPHENOL	5.3		0.03	5.1	48	1
PHENANTHRENE				1000	2500	40
PHENOL	47000		100	1000	2500	800
PYRENE	2300		4200	1000	2500	40
1,1,1-TRICHLOROETHANE	1600	1200	2	500	1000	40
1,1,2,2-TETRACHLOROETHANE	3.2	0.6	0.003	3.1	29	0.1
1,1,2-TRICHLOROETHANE	11	1	0.02	11	100	1
1,1-DICHLOROETHANE	7800	1300	23	500	1000	14
1,1-DICHLOROETHENE	1.1	0.07	0.06	1	9.5	1.4
1,2-DICHLOROETHANE	7	0.4	0.02	6.7	63	0.2
1,2-DICHLOROETHENE (TOTAL)	700	1200 [9]	0.4 [9]	500	1000	14 [9]
2-BUTANONE	47000			500	1000	80
2-HEXANONE	3100			500 [15]	1000 [15]	56
4-METHYL-2-PENTANONE	6300			500	1000	14
ACETONE	7800	100000	16	500	1000	140
BENZENE	22	0.8	0.03	21	200	0.2
BROMODICHLOROMETHANE	10	3000	0.6	9.9	92	0.11
BROMOFORM	81	53	0.8	78	720	0.8
CARBON DISULFIDE	7800	720	32	500 [15]	1000 [15]	140

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) [1]	Federal Soil Screening Level Inhalation (mg/kg) [2]	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) [2]	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) [3]	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) [3]	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) [3]
CHLOROBENZENE	1600	130	1	500	1000	20
CHLOROETHANE	220			210	1000 [15]	2.4
CHLOROFORM	100	0.3	0.6	100	940	1.2
CHLOROMETHANE	49			47	440	0.54
ETHYLBENZENE	7800	400	13	500	1000	10.1
METHYLENE CHLORIDE	85	13	0.02	82	760	1
STYRENE	16000	1500	4	500	1000	20
TETRACHLOROETHENE	12	11	0.06	12	110	1
TOLUENE	16000	650	12	500	1000	67
TRICHLOROETHENE	58	5	0.06	56	520	1
VINYL CHLORIDE	0.34	0.03	0.01	0.32	3	0.4
XYLENES, TOTAL	160000	410 [14]	190 [14]	500	1000	19.5
BENZO(A)ANTHRACENE	0.87		2	1	7.8	1
BENZO(B)FLUORANTHENE	0.87		5	1	7.8	1
CHRYSENE	87		160	84	780	0.96
2',3,4,4',5-PENTACHLOROBIPHENYL (123)	0.32			1	10	0.005
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (170)	0.32			1	10	0.005
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (180)	0.32			1	10	0.005
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (167)	0.32			1	10	0.005
2,3',4,4',5-PENTACHLOROBIPHENYL (118)	0.32			1	10	0.005
2,3,3',4,4',5'-HEXACHLOROBIPHENYL (157)	0.32			1	10	0.005
2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (189)	0.32			1	10	0.005
2,3,3',4,4',5-HEXACHLOROBIPHENYL (156)	0.32			1	10	0.005
2,3,3',4,4'-PENTACHLOROBIPHENYL (105)	0.32			1	10	0.005
2,3,4,4',5-PENTACHLOROBIPHENYL (114)	0.32			1	10	0.005
3,3',4,4',5,5'-HEXACHLOROBIPHENYL (169)	0.32			1	10	0.005
3,3',4,4',5-PENTACHLOROBIPHENYL (126)	0.32			1	10	0.005
3,3',4,4'-TETRACHLOROBIPHENYL (77)	0.32			1	10	0.005
DECACHLOROBIPHENYL	0.32			1	10	0.005
TOTAL DICHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL HEPTACHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL HEXACHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL MONOCHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL NONACHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL OCTACHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL PENTACHLOROBIPHENYLS	0.32			1	10	0.005
TOTAL TETRACHLOROBIPHENYLS	0.32			1	10	0.005

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) [1]	Federal Soil Screening Level Inhalation (mg/kg) [2]	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) [2]	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) [3]	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) [3]	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) [3]
TOTAL TRICHLOROBIPHENYLS	0.32			1	10	0.005
AROCLOR-1254	0.32			1	10	0.005
AROCLOR-1262	0.32			1	10	0.005
AROCLOR-1268	0.32			1	10	0.005
4,4'-DDD	2.7		16	2.6	24	0.029
4,4'-DDE	1.9		54	1.8	17	0.021
4,4'-DDT	1.9		32	1.8	17	0.021
ALDRIN	0.038	3	0.5	0.036	0.34	0.00041
ALPHA-BHC	0.1	0.8	0.0005	0.097	0.91	0.0011
ALPHA-CHLORDANE	1.8 [10]	20 [10]	10 [10]	0.49 [10]	2.2 [10]	0.066 [10]
AROCLOR-1016	5.5 [19]			1	10	0.005 [18]
AROCLOR-1242	0.32			1	10	0.005 [18]
AROCLOR-1248	0.32			1	10	0.005 [18]
AROCLOR-1254	0.32			1	10	0.005 [18]
AROCLOR-1260	0.32			1	10	0.005 [18]
AROCLOR-1262	0.32			1	10	0.005 [18]
AROCLOR-1268	0.32			1	10	0.005 [18]
BETA-BHC	0.35		0.003	0.34	3.2	0.0039
DELTA-BHC				0.097 [17]	0.91 [17]	0.0011 [17]
DIELDRIN	0.04	1	0.004	0.038	0.36	0.007
ENDOSULFAN I	470 [11]		18 [11]	410	1200	8.4
ENDOSULFAN II	470 [11]		18 [11]	410	1200	8.4
ENDOSULFAN SULFATE				410 [11]	1200 [11]	8.4 [11]
ENDRIN	23		1	20	610	NE [8]
ENDRIN ALDEHYDE				20 [8]	610 [8]	NE [8]
ENDRIN KETONE				20 [8]	610 [8]	NE [8]
GAMMA-BHC (LINDANE)	0.49		0.009	20	610	0.04
GAMMA-CHLORDANE	1.8 [10]	20 [10]	10 [10]	0.49 [10]	2.2 [10]	0.066 [10]
HEPTACHLOR	0.14	0.1	23	0.14	1.3	0.013
HEPTACHLOR EPOXIDE	0.07	5	0.7	0.067	0.63	0.02
METHOXYCHLOR	390		160	340	10000	8
TECHNICAL CHLORDANE	1.8 [10]	20 [10]	10 [10]	0.49 [10]	2.2 [10]	0.066 [10]
TOXAPHENE	0.58	89	31	0.56	5.2	0.6
TOTAL ORGANIC CARBON						

TABLE 6-1

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Residential Soil (mg/kg) (1)	Federal Soil Screening Level Inhalation (mg/kg) (2)	Federal Soil Screening Level Migration to Groundwater Dilution Attenuation Factor = 20 (mg/kg) (2)	Connecticut Direct Exposure Criteria for Soil Residential (mg/kg) (3)	Connecticut Direct Exposure Criteria for Soil Industrial (mg/kg) (3)	Connecticut Pollutant Mobility Criteria Class GB (mg/kg) (3)

Notes:
(1) U.S. EPA Region III Risk-Based Concentration Table, October 1, 1998.
(2) U.S. EPA Technical Background Document, Soil Screening Levels, Table A-1, EPA/540/R-95/128, May, 1996.
(3) Regulations of Connecticut State Agencies, Direct Exposure Criteria for Soil, Regulation 22a-133k, printed November 24, 1997.
(4) value for arsenic as a carcinogen
(5) hexavalent chromium value
(6) total chromium value
(7) inorganic mercury value
(8) endrin value
(9) cis-1,2-dichloroethene value
(10) chlordane value
(11) endosulfan value
(12) secondary MCL or based on the secondary MCL value
(13) action level; USEPA, OSWER Directive #9355.4-12, July 1994
(14) o-xylene value
(15) ceiling limit; calculated value exceeds the ceiling limit
(16) pyrene value
(17) alpha-BHC value
(18) value is for aqueous units (mg/L) and is based on SPLP or TCLP analytical results
(19) special case: this value is noncarcinogenic based; all others are carcinogenic based
(20) chemical will be addressed qualitatively at the CTDEP's request

TABLE 6-2

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SURFACE WATER
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Tap Water (ug/L) [1]	Federal Maximum Contaminant Level (ug/L) [2]	Federal Maximum Contaminant Level Goal (ug/L) [2]	Connecticut Maximum Contaminant Level (ug/L) [3]	Connecticut Ambient Water Quality Criteria (ug/L) [4]	Connecticut Water Quality Standards Human Health Organisms (ug/L) [4]	Connecticut Water Quality Standards Freshwater Chronic (ug/L) [4]	Connecticut Water Quality Standards Saltwater Chronic (ug/L) [4]
ASBESTOS		7 MFL	7 MFL	7 MFL	7000000			
1,2,3,4,6,7,8-HPCDD	0.000045							
1,2,3,4,6,7,8-HPCDF	0.000045							
1,2,3,4,7,8,9-HPCDF	0.000045							
1,2,3,4,7,8-HXCDD	0.0000045							
1,2,3,4,7,8-HXCDF	0.0000045							
1,2,3,6,7,8-HXCDD	0.0000045							
1,2,3,6,7,8-HXCDF	0.0000045							
1,2,3,7,8,9-HXCDD	0.0000045							
1,2,3,7,8,9-HXCDF	0.0000045							
1,2,3,7,8-PECDD	0.0000009							
1,2,3,7,8-PECDF	0.000009							
2,3,4,6,7,8-HXCDF	0.0000045							
2,3,4,7,8-PECDF	0.0000009							
2,3,7,8-TCDD	0.00000045	0.00003	0	0.00003	0.000000013	0.000000014		
2,3,7,8-TCDF	0.0000045							
OCDD	0.00045							
OCDF	0.00045							
TOTAL HPCDD								
TOTAL HPCDF								
TOTAL HXCDD								
TOTAL HXCDF								
TOTAL PECDD								
TOTAL PECDF								
TOTAL TCDD								
TOTAL TCDF								
TOXICITY EQUIVALENCY TEQ								
ALUMINUM	37000	50 - 200 [12]						
ANTIMONY	15	6	6	6	14	4300		
ARSENIC	0.045 [5]	50		50	0.018	0.14	190	36
BARIUM	2600	2000	2000	2000				
BERYLLIUM	73	4	4	4	0.0077	0.13		
CADMIUM	18	5	5	5	16	170	0.66	9.3
CALCIUM								
CHROMIUM	110 [6]	100	100	100	170 [6]	3400 [6]	11 [6]	50 [6]
COBALT	2200							
COPPER	1500	1300 [13]	1300				4.8	2.9
IRON	11000	300 [12]						
LEAD		15 [13]	0		50		1.3	8.5
MAGNESIUM								
MANGANESE	730	50 [12]						
MERCURY	3.7	2	2	2	0.14	0.15	0.012	0.025

TABLE 6-2

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SURFACE WATER
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Tap Water (ug/L) [1]	Federal Maximum Contaminant Level (ug/L) [2]	Federal Maximum Contaminant Level Goal (ug/L) [2]	Connecticut Maximum Contaminant Level (ug/L) [3]	Connecticut Ambient Water Quality Criteria (ug/L) [4]	Connecticut Water Quality Standards Human Health Organisms (ug/L) [4]	Connecticut Water Quality Standards Freshwater Chronic (ug/L) [4]	Connecticut Water Quality Standards Saltwater Chronic (ug/L) [4]
NICKEL	730	100	100	100	610	4600	88	8.3
POTASSIUM								
SELENIUM	180	50	50	50	100	6800	5	71
SILVER	180	100 [12]		50	105	65000	1.2 [15]	2.3 [15]
SODIUM				28000				
THALLIUM	2.6 [8]	2	0.5	2	1.7	6.3		
VANADIUM	260							
ZINC	11000	5000 [12]					12.3	86
1,2,4-TRICHLOROBENZENE	190	70	70	70				
1,2-DICHLOROBENZENE	64	600	600	600	2700	17000		
1,4-DICHLOROBENZENE	0.47	75	75	75	400	2600		
2,4-DIMETHYLPHENOL	730							
2-METHYLNAPHTHALENE	120							
2-METHYLPHENOL	1800							
3,3'-DICHLOROBENZIDINE	0.15				0.04	0.077		
4-BROMOPHENYL PHENYL ETHER								
4-CHLORO-3-METHYLPHENOL								
4-CHLOROANILINE	150							
4-METHYLPHENOL	180							
4-NITROANILINE								
4-NITROPHENOL	290							
ACENAPHTHENE	2200							
ACENAPHTHYLENE					0.0028	0.031		
ANTHRACENE	11000				9600	110000		
BENZO(A)ANTHRACENE	0.092				0.0028	0.031		
BENZO(A)PYRENE	0.0092	0.2	0	0.2	0.0028	0.031		
BENZO(B)FLUORANTHENE	0.092				0.0028	0.031		
BENZO(G,H,I)PERYLENE					0.0028	0.031		
BENZO(K)FLUORANTHENE	0.92				0.0028	0.031		
BIS(2-ETHYLHEXYL)PHTHALATE	4.8	6	0	6	1.8	5.9		
BUTYLBENZYL PHTHALATE	7300							
CARBAZOLE	3.3							
CHRYSENE	9.2				0.0028	0.031		
DI-N-BUTYL PHTHALATE	3700				2700	12000		
DI-N-OCTYL PHTHALATE	730							
DIBENZO(A,H)ANTHRACENE	0.0092				0.0028	0.031		
DIBENZOFURAN	24							
DIETHYL PHTHALATE	29000				23000	120000		
DIMETHYL PHTHALATE	370000				313000	2900000		
FLUORANTHENE	1500				300	370		
FLUORENE	1500				1300	14000		
HEXACHLOROBENZENE	0.0066	1	0	1	0.00075	0.00077		
INDENO(1,2,3-CD)PYRENE	0.092				0.0028	0.031		

TABLE 6-2

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SURFACE WATER
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Tap Water (ug/L) [1]	Federal Maximum Contaminant Level (ug/L) [2]	Federal Maximum Contaminant Level Goal (ug/L) [2]	Connecticut Maximum Contaminant Level (ug/L) [3]	Connecticut Ambient Water Quality Criteria (ug/L) [4]	Connecticut Water Quality Standards Human Health Organisms (ug/L) [4]	Connecticut Water Quality Standards Freshwater Chronic (ug/L) [4]	Connecticut Water Quality Standards Saltwater Chronic (ug/L) [4]
N-NITROSO-DI-N-PROPYLAMINE	0.0096							
N-NITROSODIPHENYLAMINE	14				5	16		
NAPHTHALENE	730							
PENTACHLOROPHENOL	0.56	1	0	1	0.28	8.2	5.73	7.9
PHENANTHRENE					0.0028	0.031		
PHENOL	22000				21000	4600000		
PYRENE	1100				960	11000		
1,1,1-TRICHLOROETHANE	540	200	200	200	3100			
1,1,2,2-TETRACHLOROETHANE	0.053				0.17	11		
1,1,2-TRICHLOROETHANE	0.19	5	3	5	0.6	42		
1,1-DICHLOROETHANE	800							
1,1-DICHLOROETHENE	0.044	7	7	7	0.057	3.2		
1,2-DICHLOROETHANE	0.12	5	0	5	0.38	99		
1,2-DICHLOROETHENE (TOTAL)	55	70 [9]	70 [9]	70 [9]				
2-BUTANONE	1900							
2-HEXANONE	1500							
4-METHYL-2-PENTANONE	2900							
ACETONE	3700							
BENZENE	0.36	5	0	5	1.2	71		
BROMODICHLOROMETHANE	0.17	100/80 [14]	0	100	0.27	22		
BROMOFORM	2.3	100/80 [14]	0	100	4.3	360		
CARBON DISULFIDE	1000							
CHLOROBENZENE	35	100	100	100	680	21000		
CHLOROETHANE	3.6							
CHLOROFORM	0.15	100/80 [14]	0	100	5.7	470		
CHLOROMETHANE	1.5				5.7	470		
ETHYLBENZENE	1300	700	700	700	3100	29000		
METHYLENE CHLORIDE	4.1	5	0	5	4.7	1600		
STYRENE	1600	100	100	100				
TETRACHLOROETHENE	1.1	5	0	5	0.8	8.85		
TOLUENE	750	1000	1000	1000	6800	200000		
TRICHLOROETHENE	1.6	5	0	5	2.7	81		
VINYL CHLORIDE	0.019	2	0	2	2	525		
XYLENES, TOTAL	12000	10000	10000	10000				
BENZO(A)ANTHRACENE	0.092				0.0028	0.031		
BENZO(B)FLUORANTHENE	0.092				0.0028	0.031		
CHRYSENE	9.2				0.0028	0.031		
2',3,4,4',5-PENTACHLOROBIPHENYL (123)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (170)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (180)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (167)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3',4,4',5-PENTACHLOROBIPHENYL (118)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]

TABLE 6-2

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SURFACE WATER
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Tap Water (ug/L) [1]	Federal Maximum Contaminant Level (ug/L) [2]	Federal Maximum Contaminant Level Goal (ug/L) [2]	Connecticut Maximum Contaminant Level (ug/L) [3]	Connecticut Ambient Water Quality Criteria (ug/L) [4]	Connecticut Water Quality Standards Human Health Organisms (ug/L) [4]	Connecticut Water Quality Standards Freshwater Chronic (ug/L) [4]	Connecticut Water Quality Standards Saltwater Chronic (ug/L) [4]
2,3,3',4,4',5'-HEXACHLOROBIPHENYL (157)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (189)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3,3',4,4',5-HEXACHLOROBIPHENYL (156)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3,3',4,4'-PENTACHLOROBIPHENYL (105)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
2,3,4,4',5-PENTACHLOROBIPHENYL (114)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
3,3',4,4',5,5'-HEXACHLOROBIPHENYL (169)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
3,3',4,4',5-PENTACHLOROBIPHENYL (126)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
3,3',4,4'-TETRACHLOROBIPHENYL (77)	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
DECACHLOROBIPHENYL	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL DICHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL HEPTACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL HEXACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL MONOCHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL NONACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL OCTACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL PENTACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL TETRACHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
TOTAL TRICHLOROBIPHENYLS	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
AROCLOR-1254	0.033	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1262	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
AROCLOR-1268	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
4,4'-DDD	0.28				0.00083	0.00084		
4,4'-DDE	0.2				0.00059	0.00059		
4,4'-DDT	0.2				0.00059	0.00059	0.001	0.001
ALDRIN	0.0039				0.00013	0.00014	1.5 [15]	0.65 [15]
ALPHA-BHC	0.011				0.0039	0.013		
ALPHA-CHLORDANE	0.19 [10]	2 [10]	0 [10]	2	0.00057 [10]	0.00059 [10]	0.0043 [10]	0.004 [10]
AROCLOR-1016	0.96	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1242	0.033	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1248	0.033	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1254	0.033	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1260	0.033	0.5	0	0.5	0.000044	0.000045	0.014	0.03
AROCLOR-1262	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
AROCLOR-1268	0.033	0.5	0	0.5	0.000044 [16]	0.000045 [16]	0.014 [16]	0.03 [16]
BETA-BHC	0.037				0.014	0.046		
DELTA-BHC								
DIELDRIN	0.0042				0.00014	0.00014	0.0019	0.0019
ENDOSULFAN I	220 [11]				0.93	2	0.056	0.0087
ENDOSULFAN II	220 [11]				0.93	2	0.056	0.0087

TABLE 6-2

CRITERIA USED TO EVALUATE CHEMICALS DETECTED IN SURFACE WATER
FERRY CREEK, STRATFORD, CT

Parameter	Region III Risk-Based Concentration Tap Water (ug/L) (1)	Federal Maximum Contaminant Level (ug/L) (2)	Federal Maximum Contaminant Level Goal (ug/L) (2)	Connecticut Maximum Contaminant Level (ug/L) (3)	Connecticut Ambient Water Quality Criteria (ug/L) (4)	Connecticut Water Quality Standards Human Health Organisms (ug/L) (4)	Connecticut Water Quality Standards Freshwater Chronic (ug/L) (4)	Connecticut Water Quality Standards Saltwater Chronic (ug/L) (4)
ENDOSULFAN SULFATE					0.93	2		
ENDRIN	11	2	2	2	0.76	0.81	0.0023	0.0023
ENDRIN ALDEHYDE					0.76	0.81		
ENDRIN KETONE								
GAMMA-BHC (LINDANE)	0.052	0.2	0.2	0.2	0.019	0.063	0.08	0.08 (15)
GAMMA-CHLORDANE	0.19 (10)	2 (10)	0 (10)	2	0.00057 (10)	0.00059 (10)	0.0043 (10)	0.004 (10)
HEPTACHLOR	0.0023	0.4	0	0.4	0.00021	0.00021	0.0038	0.0036
HEPTACHLOR EPOXIDE	0.0012	0.2	0	0.2	0.0001	0.00011	0.0038	0.0036
METHOXYCHLOR	180	40	40	40				
TECHNICAL CHLORDANE	0.19 (10)	2 (10)	0 (10)	2	0.00057 (10)	0.00059 (10)	0.0043 (10)	0.004 (10)
TOXAPHENE	0.0096	3	0	3	0.00073	0.00075	0.0002	0.0002
TOTAL ORGANIC CARBON								

Notes:
(1) U.S. EPA Region III Risk-Based Concentration Table, December 5, 1997.
(2) U.S. EPA, Office of Water, Drinking Water Regulations and Health Advisories, October, 1996.
(3) Regulations of Connecticut State Agencies, Standards for Quality and Adequacy of Public Drinking Water, Regulation 19-13, printed November 24, 1997.
(4) State of Connecticut Department of Environmental Protection, Water Quality Standards, Appendix D: Numerical Water Quality Criteria for Chemical Constituents, March 17, 1997.
(5) value for arsenic as a carcinogen
(6) hexavalent chromium value
(7) inorganic mercury value
(8) thallic oxide value
(9) cis-1,2-dichloroethene value
(10) chlordane value
(11) endosulfan value
(12) secondary MCL or based on the secondary MCL value
(13) action level; USEPA, OSWER Directive #9355.4-12, July 1994
(14) 1994 proposed rule for disinfectants and disinfection by-products: total for all THMs combined cannot exceed the 80 ug/L level
(15) acute value
(16) value provided for other PCBs has been substituted; professional judgment used to determine surrogate value
(17) methylmercury value
MFL - million fibers (>10 um in length) per liter

TABLE 6-3

CANCER SLOPE FACTORS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT
PAGE 1 OF 3

Chemical	Weight of Evidence (2)	CSF Oral $(mg/kg/day)^{-1}$	CSF Inhalation $(mg/kg/day)^{-1}$	Gastrointestinal Absorption Factor	CSF Dermal $(mg/kg/day)^{-1}$ (3)
1,1,1-Trichloroethane	D	NA	NA	Not Adjusted(12)	NA
1,1-Dichloroethene	C	6.0E-1(18)(2)	1.75E-1(18)(2)	Not Adjusted(12)	6.0E-1
1,2-Dichloroethene(total)	NA	NA	NA	Not Adjusted(12)	NA
Benzene	A	2.9E-2(18)(2)	2.9E-2(18)(2)	Not Adjusted(12)	2.9E-2
Bromodichloromethane	B2	6.2E-2(18)(2)	NA	Not Adjusted(12)	6.2E-2
Chlorobenzene	D	NA	NA	Not Adjusted(12)	NA
Chloroform	B2	6.1E-3(18)(2)	8.1E-2(18)(2)	Not Adjusted(12)	6.1E-3
Chloromethane	C	1.3E-2(18)	6.0E-3(18)	Not Adjusted(12)	1.3E-2
Tetrachloroethene	NA	5.2E-2(18)	2.0E-3(18)	Not Adjusted(12)	5.2E-2
Trichloroethene	NA	1.1E-2(18)	6.0E-3(18)	Not Adjusted(12)	1.1E-2
Vinyl Chloride	A	1.9E+0(18)	3.0E-1(18)	Not Adjusted(12)	1.9E+0
Bis(2-ethylhexyl)phthalate	B2	1.4E-2(18)(2)	1.4E-2(18)	Not Adjusted(12)	1.4E-2
Benzo(a)anthracene	B2	7.3E-1(18)	NA	Not Adjusted(12)	7.3E-1
Benzo(b)fluoranthene	B2	7.3E-1(18)	NA	Not Adjusted(12)	7.3E-1
Benzo(k)fluoranthene	B2	7.3E-2(18)	NA	Not Adjusted(12)	7.3E-2
Benzo(a)pyrene	B2	7.3E+0(2)	3.1E+0(2)	Not Adjusted(12)	7.3E+0
Dibenz(a,h)anthracene	B2	7.3E+0(18)	NA	Not Adjusted(12)	7.3E+0
Indeno(1,2,3-cd)pyrene	B2	7.3E-1(18)	NA	Not Adjusted(12)	7.3E-1
Aldrin	B2	1.7E+1(18)(2)	1.7E+1(18)(2)	Not Adjusted(12)	1.7E+1
Chlordane (alpha and gamma)	B2	3.5E-1(18)(2)	3.5E-1(18)(2)	Not Adjusted(12)	3.5E-1
4,4'-DDD	B2	2.4E-1(18)(2)	NA	Not Adjusted(12)	2.4E-1
4,4'-DDE	B2	3.4E-1(18)(2)	NA	Not Adjusted(12)	3.4E-1

TABLE 6-3

CANCER SLOPE FACTORS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Weight of Evidence [2]	CSF Oral $(mg/kg/day)^{-1}$	CSF Inhalation $(mg/kg/day)^{-1}$	Gastrointestinal Absorption Factor	CSF Dermal $(mg/kg/day)^{-1}$ [3]
4,4'-DDT	B2	3.4E-1[18][2]	3.4E-1[18][2]	Not Adjusted[12]	3.4E-1
Dieldrin	B2	1.6E+1[18][2]	1.6E+1[18][2]	Not Adjusted[12]	1.6E+1
Hepatachlor	B2	4.5E+0[18][2]	4.5E+0[18][2]	Not Adjusted[12]	4.5E+0
Heptachlor epoxide	B2	9.1E+0[18][2]	9.1E+0[18][2]	Not Adjusted[12]	9.1E+0
Aroclor (total)	B2	2.0E+0 RME/[2] 1.0E+0 CTE[19]	2.0E+0 RME/[2] 1.0E+0 CTE[19]	Not Adjusted[12]	2.0E+0 RME/[2] 1.0E+0 CTE[19]
Aroclor 1262	B2	2.0E+0 RME[2]	2.0E+0 RME[2]	Not Adjusted[12]	2.0E+0 RME[2]
Dioxins (2,3,7,8-TCDD TEQ)	B2	1.5E+5[18]	1.5E+5[18][2]	Not Adjusted[12]	1.5E+5
Antimony	D	NA	NA	0.15[12]	NA
Arsenic	A	1.5E+0[4][2]	1.51E+1[4][2]	Not Adjusted[12]	1.5E+0
Barium	D	NA	NA	0.07[12]	NA
Beryllium	* B2	NA	8.4E+0[2][10]	0.007[12]	NA
Cadmium (food)	B1	NA	6.3E+0[2]	0.05[12]	NA
Chromium	A[9][17]	NA	4.1E+1[2][9]	0.025[12]	NA
Copper	D	NA	NA	Not Adjusted[12]	NA
Lead	B2	NA	NA	0.50[8]	NA
Manganese (non-food)	D	NA	NA	0.06[12]	NA
Manganese (food)	D	NA	NA	0.06[12]	NA
Mercury	D	NA	NA	0.07[12]	NA
Nickel	D	NA	NA	0.04[12]	NA
Selenium	D	NA	NA	Not Adjusted[12]	NA

TABLE 6-3

CANCER SLOPE FACTORS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Weight of Evidence (2)	CSF Oral $(mg/kg/day)^{-1}$	CSF Inhalation $(mg/kg/day)^{-1}$	Gastrointestinal Absorption Factor	CSF Dermal $(mg/kg/day)^{-1}$ (3)
Thallium	D	NA	NA	1.0(12)	NA
Vanadium	D	NA	NA	0.026(12)	NA
Zinc	D	NA	NA	Not Adjusted(12)	NA

1 Values supplied by USEPA Region I.
2 IRIS, USEPA, 1998.
3 Values calculated as per RAGs Part A, USEPA, 1989d.
4 Proposed based on carcinogenicity.
5 ATSDR, 1991a, Arsenic.
6 ATSDR, 1991b, Beryllium.
7 ATSDR, 1993, Cadmium.
8 ATSDR, 1988 value for children.
9 Hexavalent chromium.
10 Used if air concentration is less than 4 ug/m^3.
11 USEPA Region IV February 26, 1996h, "Dermal Risk Values Derived by Calculation from Gastrointestinal (GI) Absorption Data."
12 Table 4.1, "Summary of Gastrointestinal Absorption Efficiencies and Recommendations for Adjustment of Oral Slope Factors for Specific Compounds", 11/13/98, U.S.EPA
Region I.
13 Default value RAGs Part A, USEPA, 1989d.
14 ATSDR, 1992b, Manganese.
15 ATSDR, 1994, Mercury.
16 ATSDR, 1991c, Nickel.
17 USEPA 1994b.
18 USEPA, Region III Risk-Based Concentration Table, October 1, 1998b.
19 USEPA PCB Guidance, September 1996e.
NE Chemicals Not Evaluated.
NA Values Not Available.

TABLE 6-4

ESTIMATED ORDERS OF POTENTIAL POTENCY FOR CARCINOGENIC PAHs[1]
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Weight-of-Evidence	Order of Potential Potency
Benzo(a)anthracene	B2	0.1
Benzo(b)fluoranthene	B2	0.1
Benzo(k)fluoranthene	B2	0.01
Benzo(a)pyrene	B2	1.0
Chrysene	B2	0.001
Dibenzo(a,h)anthracene	B2	1.0
Indeno(1,2,3-cd)pyrene	B2	0.1

1 USEPA, July 1993g; USEPA Region I, 1994m.

TABLE 6-5

DIOXIN AND FURAN TOXICITY EQUIVALENT FACTORS[a]
FERRY CREEK, STRAFFORD, CONNECTICUT

Compound	TEF
Dioxins	
Mono-, Di-, and Trichlorodibenzo-p-dioxins	0
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1
Other TCDDs	0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDDs)	1
Other PeCDDs	0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxins (HxCDDs)	0.1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxins (HxCDDs)	0.1
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxins (HxCDDs)	0.1
Other HxCDDs	0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	0.01
Other HpCDDs	0
Octachlorodibenzo-p-dioxin (OCDD)	0.0001
Furans	
Mono-, Di-, and Trichlorodibenzo-p-furans	0
2,3,7,8-Tetrachlorodibenzo-p-furan (TCDF)	0.1
Other TCDFs	0
1,2,3,7,8-Pentachlorodibenzo-p-furan (PeCDF)	0.05
2,3,4,7,8-Pentachlorodibenzo-p-furans (PeCDF)	0.5
Other PeCDFs	0
1,2,3,4,7,8-Hexachlorodibenzo-p-furans (HxCDFs)	0.1
1,2,3,6,7,8-Hexachlorodibenzo-p-furans (HxCDFs)	0.1
1,2,3,7,8,9-Hexachlorodibenzo-p-furans (HxCDFs)	0.1
2,3,4,6,7,8-Hexachlorodibenzo-p-furans (HxCDFs)	0.1
Other HxCDFs	0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-furans (HpCDFs)	0.01
1,2,3,4,7,8,9-Heptachlorodibenzo-p-furans (HpCDFs)	0.01
Other HpCDFs	0
Octachlorodibenzo-p-furan (OCDF)	0.0001

[a]Van de Berg et al., "Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife, " Environmental Health Perspectives 106: pp, 775-792, December, 1998.

TABLE 6-6A

SLOPE FACTORS FOR AROCLORS [1]
FERRY CREEK, STRATFORD, CT

Upper-bound Slope Factors	Application	Central-estimate Slope Factors
2 mg/kg/day	soil/sediment ingestion; dust/aerosol inhalation	1 mg/kg/day
0.4 mg/kg/day	drinking water ingestion; vapor inhalation	0.3 mg/kg/day
0.07 mg/kg/day	used when information is available about congener composition of mixture	0.04 mg/kg/day

(1) U.S. EPA, National Center for Environmental Assessment, Office of Research and Development, "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures", EPA/600/P-96/001F, September, 1996.

TABLE 6-6B

TOXICITY EQUIVALENCE FACTORS FOR PCB CONGENERS
FERRY CREEK, STRATFORD, CT

Chemical	Toxicity Equivalence Factor[1]
Dioxin-like PCB Congeners	
2',3,4,4',5-Pentachlorobiphenyl (123)	0.0001
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	
2,2'3,4,4'5,5'-Heptachlorobiphenyl (180)	
2,3',4,4',5,5'-Hexachlorbiphenyl (167)	0.00001
2,3'4,4',5-Pentachlorobiphenyl (118)	0.0001
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	0.0005
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.0001
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.0005
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.0001
2,3,4,4',5-Pentachlorbiphenyl (114)	0.0005
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.01
3,3'4,4',5-Pentachlorobiphenyl (126)	0.1
3,3'4,4'-Tetrachlorobiphenyl (77)	0.0001
Total PCBs	
Decachlorobiphenyl	NA
Total Dichlorobiphenyls	NA
Total Heptachlorobiphenyls	NA
Total Hexachlorobiphenyls	NA
Total Monochlorobiphenyls	NA
Total Nonachlorobiphenyls	NA
Total Octachlorobiphenyls	NA
Total Pentachlorobiphenyls	NA
Total Tetrachlorobiphenyls	NA
Total Trichlorobiphenyls	NA

NA - Not Available

1 Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife, Van denBerg et al., Environmental Health Perspectives, Volume 106, Number 12, December 1998.

TABLE 6-7

REFERENCE DOSES AND ENDPOINTS/TARGET ORGANS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Absorption Factors[1]	RfD Oral-Chronic (mg/kg/day)	RfD Inhalation-Chronic (mg/kg/day)	Gastrointestinal Absorption Factor	RfD Dermal-Chronic (mg/kg/day) [3]	Toxic Endpoints or Target Organs[17]
1,1,1-Trichloroethane	NE	2.0E-2[2]	2.9E-1	Not Adjusted[12]	2.0E-2	NA
1,1-Dichloroethene	NE	9.0E-3[2]	NA	Not Adjusted[12]	9.0E-3	Liver
1,2-Dichloroethene (total)	NE	9.0E-3[2]	NA	Not Adjusted[12]	9.0E-3	Blood
Benzene	NE	3.0E-3[2]	1.7E-3[2]	Not Adjusted[12]	3.0E-3	NA
Bromodichloromethane	NE	2.0E-2[2][17]	NA	Not Adjusted[12]	2.0E-2	Kidney
Chlorobenzene	NE	2.0E-2[2][17]	5.0E-3[2]	Not Adjusted[12]	2.0E-2	Liver
Chloroform	NE	1.0E-2[2][17]	8.6E-5[2]	Not Adjusted[12]	1.0E-2	Liver
Chloromethane	NE	NA	NA	Not Adjusted[12]	NA	NA
Tetrachloroethene	NE	1.0E-2[2][17]	1.4E-1[2]	Not Adjusted[12]	1.0E-2	Liver
Trichloroethene	NE	6.0E-3[2]	NA	Not Adjusted[12]	6.0E-3	NA
Vinyl Chloride	NE	NA	NA	Not Adjusted[12]	NA	NA
Bis(2-ethylhexyl)phthalate	NE	2.0E-2[2][17]	NA	Not Adjusted[12]	2.0E-2	Liver
Benzo(a)anthracene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Benzo(b)fluoranthene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Benzo(k)fluoranthene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Benzo(a)pyrene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Dibenz(a,h)anthracene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Indeno(1,2,3-cd)pyrene	0.13	NA	NA	Not Adjusted[12]	NA	NA
Aldrin	NE	3.0E-5[2][17]	NA	Not Adjusted[12]	3.0E-5	Liver
Chlordane (alpha and gamma)	0.04	5.0E-4[2][17]	2.0E-4[2][17]	Not Adjusted[12]	5.0E-4	Liver
4,4'-DDD	NE	NA	NA	Not Adjusted[12]	NA	NA
4,4'-DDE	NE	NA	NA	Not Adjusted[12]	NA	NA

TABLE 6-7

REFERENCE DOSES AND ENDPOINTS/TARGET ORGANS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Absorption Factors[1]	RfD Oral-Chronic (mg/kg/day)	RfD Inhalation-Chronic (mg/kg/day)	Gastrointestinal Absorption Factor	RfD Dermal-Chronic (mg/kg/day) [3]	Toxic Endpoints or Target Organs[17]
4,4'-DDT	0.03	5.0E-4[2][17]	NA	Not Adjusted[12]	5.0E-4	Liver
Dieldrin	NE	5.0E-5[2][17]	NA	Not Adjusted[12]	5.0E-5	Liver
Heptachlor	NE	5.0E-4[2][17]	NA	Not Adjusted[12]	5.0E-4	Liver
Heptachlor Epoxide	NE	1.3E-5[2][17]	NA	Not Adjusted[12]	1.3E-5	Liver
Aroclor 1254	0.14	2.0E-5[2][17]	NA	Not Adjusted[12]	2.0E-5	Immune system
Dioxins (2,3,7,8-TCDD TEQ)	0.001 to 0.03	NA	NA	Not Adjusted[12]	NA	NA
Asbestos	NE	NA		NA	NA	NA
Antimony	NE	4.0E-4[2][17]	NA	0.15[12]	6.0E-5	Whole body, blood
Arsenic	0.03	3.0E-4[2][17]	NA	Not Adjusted[12]	3.0E-4	Skin
Barium	NE	7.0E-2[2][17]	1.4E-4[5]	0.07[12]	4.9E-3	Cardiovascular (oral) Fetus (inhalation)
Beryllium	NE	2.0E-3[2][17]	5.7E-6[2]	0.007[12]	1.4E-5	Not Reported
Cadmium (food)	0.01	1.0E-3[2][17]	NA[2]	0.05[12]	5.0E-5	Kidney
Chromium	NE	3.0E-3[2][14][17]	3.0E-5	0.025[12]	7.5E-5	Not Reported
Copper	NE	NA	NA	NA	NA	NA
Lead	NE	NA	NA	NA	NA	CNS[17]
Manganese (non-food)	NE	2.0E-2[2][17]	1.43E-5[2][17]	0.06[12]	1.2E-3	CNS
Manganese (food)	NE	1.4E-1[2][17]	1.43E-5[2][17]	0.06[12]	8.4E-3	CNS
Mercury	NE	3.0E-4[5][18]	8.6E-5[5][17]	0.07[12]	2.1E-5	Kidney (oral) CNS (inhalation)
Nickel	NE	2.0E-2[2][17]	NA	0.04[12]	8.0E-4	Whole body, major organs
Selenium	NE	5.0E-3[2][17]	NA	Not Adjusted[12]	5.0E-3	Whole body

TABLE 6-7

REFERENCE DOSES AND ENDPOINTS/TARGET ORGANS FOR CHEMICALS OF CONCERN
FERRY CREEK, STRATFORD, CONNECTICUT

Chemical	Absorption Factors[1]	RfD Oral-Chronic (mg/kg/day)	RfD Inhalation-Chronic (mg/kg/day)	Gastrointestinal Absorption Factor	RfD Dermal-Chronic (mg/kg/day) [3]	Toxic Endpoints or Target Organs[17]
Thallium	NE	7.0E-5[2]	NA	1.0[12]	7.0E-5	Liver, blood, hair
Vanadium	NE	7.0E-3[5]	NA	0.026[12]	1.8E-4	Not Reported
Zinc	NE	3.0E-1[2][17]	NA	Not Adjusted[12]	3.0E-1	Blood[17]

1 Values supplied by USEPA Region I.
2 USEPA, October 1, 1998b. Region III Risk-Based Concentration Table
3 Values calculated as per RAGs Part A, USEPA 1989d.
4 Default value, RAGs Part A USEPA, 1989d.
5 USEPA, 1997b.
6 ATSDR, 1991a, Arsenic.
7 ATSDR, 1993, Cadmium.
8 ATSDR, 1992b, Manganese.
9 ATSDR, 1994, Mercury.
10 ATSDR, 1991c, Nickel.
11 ATSDR, 1991b, Beryllium.
12 Table 4.1, "Summary of Gastrointestinal Absorption Efficiencies and Recommendations for Adjustment of Oral Slope Factors for Specific Compounds", 11/13/98, U.S.EPA Region I.
13 USEPA, 1994b.
14 Hexavalent chromium.
15 USEPA Region IV February 26, 1996h, "Dermal Risk Values derived by calculation from Gastrointestinal (GI) Absorption data,"
16 ATSDR, 1988 Lead value for Children.
17 IRIS, 1998.
18 Value for Mercuric Chloride presented.
NE Chemical Not Evalauted.
NA Values Not Available.

TABLE 6-8

SUMMARY OF POTENTIAL RECEPTORS
FERRY CREEK, STRATFORD, CONNECTICUT

Area		Potential Receptor			
		Commercial/Industrial Worker[1]	Frequent Recreational User[2]		Older Child[3] Trespasser
			Adult	Child	
Area A: Upper Ferry Creek	Morgan Francis Property	X[4]	X	X	X
	Spada Property	X			X
	Residential Properties on Housatonic Avenue		X	X	

(1) Potential exposure to subsurface soil (> 2feet) will be evaluated under the future land use scenario for this receptor.
(2) Refers to adult and child residents whose homes border the area. Children ages 0 to 6 years will be evaluated at Area A1, the Morgan Francis Property. Children ages 3 to 6 years will be evaluated at Area A3, the Residential Properties on Housatonic Avenue.
(3) Older child (ages 9 to 18) to be evaluated.
(4) X - Indicates potential receptors for the site based on current and/or future land use.

TABLE 6-9

SUMMARY OF EXPOSURE ROUTES EVALUATED QUANTITATIVELY
FERRY CREEK, STRATFORD, CONNECTICUT

Receptors	Exposure Routes
Commercial/Industrial Worker	• Soil ingestion (surface and subsurface) • Dermal contact with soils (surface and subsurface)
Frequent Recreational User/ Infrequent Recreational User/Trespasser	• Ingestion of surficial soils, wetland soils, and/or sediments. • Dermal contact with surficial soils, wetland soils, and/or sediments. • Dermal contact with surface waters.

TABLE 6-10A

SUMMARY OF EXPOSURE INPUT PARAMETERS - SEDIMENT/SOIL[1]
FERRY CREEK, STRATFORD, CONNECTICUT

Exposure Input Parameter	Commercial/ Industrial Worker		Frequent Recreational User (Adult/Child)[2]		Adolescent Trespasser (9-18 yrs)	
	RME	CTE	RME	CTE	RME	CTE
C (mg/kg)	95% UCL[3]					
EF (day/year) Area A1, A2	250[4]	250[4]	150[5]	150[5]	52	52
EF (day/year) Area A3	250[4]	250[4]	90	90	52	52
ED (years) Area A1, A2	25[5]	9	24/6[5][6]	7/2[5][6]	10	5
ED (years) Area A3	25[5]	9	24/3	7/3	10	5
BW (kg) Area A1, A2	70[5]	70[5]	70/15[5][6]	70/15[5][6]	51[7]	51[7]
BW (kg) Aea A3	70[5]	70[5]	70/17.5[5][6]	70/17.5[5][6]	51[7]	51[7]
IR (mg/day)	100	50[5]	100/200[6]	50/100[6]	100	50
ABS (unitless)	Chemical Specific Dermal Absorption Factors (Table 6-10B)					
AF (mg/cm^2) Area A1[8]	0.2	0.02	0.07/0.2	0.01/0.06	0.07	0.01
AF (mg/cm^2) Area A2[8]	0.2	0.02	NA	NA	0.07	0.01
AF (mg/cm^2) Area A3[9]	NA	NA	0.3/1.0	0.04/0.2	NA	NA
SA (cm^2/day) [10]	2,500	2,500	5,700/2,900	5,700/2,900	3,500	3,500

RME Reasonable Maximum Exposure.
CTE Central Tendency Exposure.
C Exposure concentrations.
UCL Upper confidence limit.
EF Exposure Frequency.
ED Exposure duration.
BW Body weight.
IR Ingestion rate.
PCBs Polychlorinated biphenyls.
ABS Absorption Factor.
AF Soil-to-skin adherence factor.
SA Skin surface area available for contact.

(1) Unless otherwise specified, the value presented represents professional judgement and was presented in the Final RI/FS Work Plan for Raymark.
(2) For Area A1 the child is assumed to be 0 to 6 years, for Area A3 the child is assumed to be 3 to 6 years.
(3) For datasets with greater than 10 samples: EPCs represent the 95 UCL of the arithmetic mean, unless the 95 percent UCL is greater than the maximum detected concentration. If the 95 percent UCL is greater than the maximum, the maximum is selected as the EPC for the RME case and the arithmetic mean is selected as the EPC for the CTE case. For datasets with 10 or less samples: the maximum detected and arithmetic mean concentration are selected as the EPCs for the RME and CTE cases, respectively.
(4) Value based on Connecticut Remediation Standards (CTDEP, December 13, 1995).
(5) USEPA Region I, August 1994; Exposure Factors Handbook (August 1997); the body weight for A3 assumes that a 3 to 6 yr old child is the receptor.
(6) Adult receptor value/child receptor value.
(7) Exposure Factors Handbook Volume I, August 1997, EPA/600/P-95/002Fa.
(8) Adherence factors (AF) based on dry soil, were used in Area A1 and Area A2. USEPA, 1998 draft Dermal Guidance.
(9) Adherence factors (AF) based on wet soil, were used in Area A3. USEPA, 1998 draft Dermal Guidance.
(10) Assumes exposure to face, hands, forearms, and lower legs of adult recreational users and adolescent trespassers receptors. Assumes exposure to face, hands, forearms, lower legs, and feet of child recreational users. Assumes exposure to face, hands, and forearms of commercial workers. Values based on Exposure Factors Handbook Volume I, August 1997.

TABLE 6-10B

CHEMICAL SPECIFIC DERMAL ABSORPTION FACTORS FOR SOILS/SEDIMENTS
FERRY CREEK, STRATFORD, CONNECTICUT

Compound	Dermal Absorption Factor	Reference
Arsenic	0.03	Wester, et al. (1993a)
Cadmium	0.01	Wester, et al. (1992a) U.S. EPA (1992)
Chlordane	0.04	Wester, et al. (1992b)
2,4-Dichlorophenoxyacetic acid	0.05	Wester, et al. (1996)
Dichlorodiphenyltrichloroethane (DDT)	0.03	Wester, et al. (1990)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) <10% organic soil >10% organic soil	 0.03 0.001	U.S. EPA (1992)
Polyaromatic hydrocarbons (PAHs) Benzo(a)pyrene	 0.13	Wester, et al. (1999)
Polychlorinated biphenyls (PCBs) Aroclor 1254 and 1242	 0.14	Wester, et al. (1993b)
Pentachlorophenol	0.25	Wester, et al. (1993c)

TABLE 6-11

SUMMARY OF EXPOSURE INPUT PARAMETERS - SURFACE WATER [1][2]
FERRY CREEK, STRATFORD, CONNECTICUT

Exposure Input Parameter	Frequent Recreational User Adult/Child (3-6 yrs)		Adolescent Trespasser (9-18 yrs)	
	RME	CTE	RME	CTE
C (mg/kg)	95% UCL[3]			
EF (days/year)	90	90	52	52
ED (years)	24/3[4][5]	7/3[4][5]	10	5
BW (kg)	70/17.5[5][4]	70/17.5[4][5]	51[6]	51[6]
ET (hours/day)/ t_{event} (hours/event)[6]	1/1	1/1	1.0	1.0
EV (events/day)	1			
SA[7] (cm^2/day)	6,600/2,300	5,700/2,000	4,500	3,900

RM E	Reasonable Maximum Exposure.	EF	Exposure frequency.	ET	Exposure time.
CTE	Central Tendency Exposure.	ED	Exposure duration.	t_{event}	Duration of event.
C	Exposure concentrations.	BW	Body weight.	EV	Event frequency.
UCL	Upper confidence limit.	CR	Contact rate.	A	Skin surface area available for contact

(1) Unless otherwise specified, the value presented represents professional judgement.
(2) Surface water exposures for the commercial worker are anticipated to be minimal and are not evaluated quantitatively in this baseline risk assessment.
(3) For datasets with greater than 10 samples: EPCs represent the 95 percent UCL of the arithmetic mean, unless the 95 percent UCL is greater than the maximum detected concentration. If the 95 percent UCL is greater than the maximum, the maximum is selected as the EPC for the RME case and the arithmetic mean is selected as the EPC for the CTE case. For datasets with 10 or less samples: the maximum detected and arithmetic mean concentration are selected as the EPCs for the RME and CTE cases, respectively.
(4) USEPA Region I, 1994; Exposure Factors Handbook (August 1997), the body weight assumes that a 3 to 6 yr old child is the receptor.
(5) Adult receptor value/child receptor value.
(6) Exposure Factors Handbook Volume I, August 1997, EPA/600/P-95/002Fa.
(7) For all scenarios (trespassing and non-swimming recreational scenarios), exposure to hands, lower legs, and feet is assumed. Values based on Expoure Factors Handbook (August 1997).

TABLE 6-12

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
SURFACE SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CONNECTICUT

Parameter	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
Volatile Organic Compounds (ug/kg)												
1,1,1-TRICHLOROETHANE	3/18	2 - 35	11 - 6400	186	RM-SD-MF01-02	160000	N	1200000	500000	1000000	-	N
1,1-DICHLOROETHANE	5/18	5 - 3400	11 - 24	205	RM-SD-MF03-03	780000	N	1300000	500000	1000000	-	N
1,1-DICHLOROETHENE	3/18	2 - 9	11 - 6400	185	RM-SD-MF01-01	1100	C	70	1000	9500	-	N
1,2-DICHLOROETHENE (TOTAL)	4/18	4 - 27	11 - 6400	186	RM-SD-MF01-02	70000	N	1200000	500000	1000000	-	N
2-BUTANONE	2/18	44 - 46	11 - 6400	190	RM-SD-MF02-02	4700000	N	-	500000	1000000	-	N
ACETONE	3/18	42 - 260	11 - 6400	211	SD-18	780000	N	100000000	500000	1000000	-	N
BENZENE	2/18	2 - 31	11 - 6400	186	RM-SD-MF01-02	22000	C	800	21000	200000	-	N
CARBON DISULFIDE	2/18	3 - 29	11 - 6400	185	SD-18	780000	N	720000	500000	1000000	-	N
CHLOROBENZENE	4/18	2 - 95	11 - 6400	189	RM-SD-MF01-02	160000	N	130000	500000	1000000	-	N
ETHYLBENZENE	1/18	6 - 6	11 - 6400	185	BP70AC-S528,E172(0.6-1.5)	780000	N	400000	500000	1000000	-	N
METHYLENE CHLORIDE	1/18	130 - 130	11 - 6400	195	SD-17	85000	C	13000	82000	760000	-	N
TETRACHLOROETHENE	2/18	8 - 14	11 - 6400	185	BP68AC-S535,E172(1.8-2.4)	12000	C	11000	12000	110000	-	N
TOLUENE	3/18	1 - 34	11 - 6400	186	BP68AC-S535,E172(1.8-2.4)	1600000	N	650000	500000	1000000	-	N
TRICHLOROETHENE	3/18	3 - 8	11 - 6400	184	SD-18	58000	C	5000	56000	520000	-	N
VINYL CHLORIDE	2/18	1 - 40	11 - 6400	186	RM-SD-MF01-02	340	C	30	320	3000	-	N(7)
XYLENES, TOTAL	2/18	4 - 6	11 - 6400	185	BP70AC-S528,E172(0.6-1.5)	16000000	N	410000	500000	1000000	-	N
Semivolatile Organic Compounds (ug/kg)												
2,4-DIMETHYLPHENOL	8/35	90 - 520	330 - 11000	564	OU3-A1-SB11-0002	160000	N	-	1000000	2500000	-	N
2-METHYLNAPHTHALENE	8/35	30 - 120	330 - 11000	543	RM-SD-MF02-02	160000	N	-	1000000	2500000	-	N
2-METHYLPHENOL	7/35	70 - 690	330 - 11000	565	MFP-6	390000	N	-	1000000	2500000	-	N
3,3'-DICHLOROBENZIDINE	1/35	540 - 540	330 - 11000	507	MFP-5	1400	C	-	1400	13000	-	N
4-METHYLPHENOL	11/35	120 - 850	330 - 11000	456	MFP-6	39000	N	-	340000	2500000	-	N
4-NITROPHENOL	1/35	80 - 80	820 - 28000	1437	OU3-A1-SB11-0002	63000	N	-	540000	2500000	-	N
ACENAPHTHENE	18/35	26 - 530	340 - 11000	379	MFP-5	470000	N	-	1000000	2500000	-	N
ACENAPHTHYLENE	24/35	23 - 1800	340 - 6000	483	RM-SD-MF02-03	-	-	-	1000000	2500000	-	N
ANTHRACENE	29/35	30 - 2900	340 - 780	488	OU3-A1-SB01-0002	2300000	N	-	1000000	2500000	-	N
BENZO(A)ANTHRACENE	33/35	40 - 6800	560 - 660	1441	OU3-A1-SB01-0002, OU3-A1-SB01-0002	880	C	-	1000	7800	-	Y
BENZO(A)PYRENE	33/35	75 - 6400	340 - 560	1336	OU3-A1-SB01-0002	88	C	-	1000	1000	-	Y
BENZO(B)FLUORANTHENE	34/35	40 - 7900	560 - 560	2166	RM-SD-MF02-03, RM-SD-MF02-03	880	C	-	1000	7800	-	Y
BENZO(G,H,I)PERYLENE	31/35	47 - 3100	560 - 3400	783	RM-SD-MF02-02, OU3-A1-SS02-0002	-	-	-	1000000	2500000	-	N
BENZO(K)FLUORANTHENE	32/35	40 - 7300	420 - 560	1565	OU3-A1-SD02-0002	8800	C	-	8400	78000	-	N
BIS(2-ETHYLHEXYL)PHTHALATE	20/35	41 - 12000	340 - 11000	1745	OU3-A1-SD01-0002	46000	C	31000000	44000	410000	-	N
BUTYLBENZYL PHTHALATE	9/35	61 - 1800	330 - 11000	643	RM-SD-MF02-02	1600000	N	930000	1000000	2500000	-	N
CARBAZOLE	25/35	26 - 770	340 - 11000	397	RM-SD-MF02-02	32000	C	-	31000	290000	-	N
CHRYSENE	34/35	36 - 8300	560 - 560	1903	MFP-5, MFP-5	88000	C	-	84000	780000	-	N
DI-N-BUTYL PHTHALATE	9/35	27 - 1600	330 - 11000	512	OU3-A1-SD03-0002	780000	N	2300000	1000000	2500000	-	N
DI-N-OCTYL PHTHALATE	7/35	210 - 9200	330 - 11000	801	RM-SD-MF02-03	160000	N	10000000	1000000	2500000	-	N
DIBENZO(A,H)ANTHRACENE	22/35	36 - 1500	330 - 11000	554	OU3-A1-SS02-0002	88	C	-	84	780	-	Y
DIBENZOFURAN	15/35	39 - 480	330 - 11000	414	MFP-5	31000	N	-	270000	2500000	-	N
DIETHYL PHTHALATE	6/35	54 - 860	330 - 11000	565	RM-SD-MF02-02	6300000	N	2000000	1000000	2500000	-	N
DIMETHYL PHTHALATE	4/35	150 - 280	330 - 11000	566	MFP-1	78000000	N	-	1000000	2500000	-	N
FLUORANTHENE	31/35	64 - 17000	400 - 660	3225	OU3-A1-SB01-0002	310000	N	-	1000000	2500000	-	N
FLUORENE	23/32	23 - 1200	340 - 1600	269	OU3-A1-SB01-0002	310000	N	-	1000000	2500000	-	N
INDENO(1,2,3-CD)PYRENE	32/35	59 - 3800	340 - 660	874	OU3-A1-SB01-0002	880	C	-	840	7800	-	Y

TABLE 6-12

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
SURFACE SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CONNECTICUT

Parameter	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
N-NITROSODIPHENYLAMINE	2/35	47 - 48	330 - 11000	565	MFP-1	130000	C	-	130000	1200000	-	N
NAPHTHALENE	12/35	33 - 345	330 - 11000	515	OU3-A1-SS02-0002	160000	N	-	1000000	2500000	-	N
PENTACHLOROPHENOL	1/35	30 - 30	820 - 28000	1436	OU3-A1-SB11-0002	5300	C	-	5100	48000	-	N
PHENANTHRENE	34/35	44 - 12000	560 - 560	1716	OU3-A1-SB01-0002	-	-	-	1000000	2500000	-	N
PHENOL	9/34	89 - 6100	330 - 11000	935	MFP-6	4700000	N	-	1000000	2500000	-	N
PYRENE	33/35	50 - 14000	560 - 660	2763	OU3-A1-SB01-0002	230000	N	-	1000000	2500000	-	N
Pesticides/PCBs (ug/kg)												
4,4'-DDD	12/46	0.99 - 42	3.3 - 82	8	RM-SD-MF03-03	2700	C	-	2600	24000	-	N
4,4'-DDE	24/45	1.2 - 89	3.2 - 60	7	SLE-G2	1900	C	-	1800	17000	-	N
4,4'-DDT	22/42	1.3 - 190	3.3 - 60	13	SLE-G2	1900	C	-	1800	17000	-	N
ALDRIN	8/46	0.75 - 19	1.7 - 42	4	RM-SD-MF01-01	38	C	3000	36	340	-	N
ALPHA-BHC	8/46	0.13 - 1.7	1.7 - 42	3	RM-SD-MF02-02	100	C	800	97	910	-	N
ALPHA-CHLORDANE	24/46	0.48 - 230	1.8 - 31	13	SLE-G2	1800	C	20000	490	2200	-	N
AROCLOR-1248	2/46	130 - 190	32 - 1950	88	OU3-A1-SS01-0002	320	C	-	1000	10000	-	Y
AROCLOR-1254	2/46	119 - 350	32 - 1950	90	RM-SD-MF02-01	160	N	-	1000	10000	-	Y
AROCLOR-1260	3/46	236 - 900	32 - 1950	106	SD-16	320	C	-	1000	10000	-	Y
AROCLOR-1262	27/43	53 - 130000	32 - 460	3473	MFP-5	320	C	-	1000	10000	-	Y
AROCLOR-1268	30/46	28 - 270000	32 - 820	7008	MFP-5	320	C	-	1000	10000	-	Y
BETA-BHC	5/45	0.16 - 11	1.7 - 42	4	RM-SD-MF02-01	350	C	-	340	3200	-	N
DELTA-BHC	6/46	0.14 - 9.2	1.7 - 42	3	PP-EF+100	-	-	-	97	910	-	N
DIELDRIN	17/46	0.49 - 28	3.3 - 82	8	RM-SD-MF03-03	40	C	1000	38	360	-	N
ENDOSULFAN I	3/46	1.7 - 66	1.7 - 42	5	PP-EF+100	47000	N	-	410000	1200000	-	N
ENDOSULFAN II	7/43	1.4 - 28	3.2 - 82	8	PP-DDE+110	47000	N	-	410000	1200000	-	N
ENDOSULFAN SULFATE	8/43	1.4 - 82	3.2 - 82	9	RM-SD-MF02-02	-	-	-	410000	1200000	-	N
ENDRIN	8/45	0.46 - 180	3.2 - 82	10	RM-SD-MF03-03	2300	N	-	20000	610000	-	N
ENDRIN ALDEHYDE	7/45	12 - 34	3.2 - 82	9	OU3-A1-SD03-0002	-	-	-	20000	610000	-	N
ENDRIN KETONE	6/45	2.5 - 200	3.2 - 82	11	PP-DDE+110	-	-	-	20000	610000	-	N
GAMMA-BHC (LINDANE)	2/45	0.54 - 0.59	1.7 - 42	3	RM-SD-MF02-02	490	C	-	20000	610000	-	N
GAMMA-CHLORDANE	25/42	0.85 - 130	1.8 - 22	10	MFP-5	1800	C	20000	490	2200	-	N
HEPTACHLOR	13/46	0.25 - 12	1.7 - 42	4	PP-EF+100	140	C	100	140	1300	-	N
HEPTACHLOR EPOXIDE	12/44	0.22 - 42	1.7 - 31	4	SLE-G2	70	C	5000	67	630	-	N
METHOXYCHLOR	9/44	3.3 - 180	17 - 420	37	RM-SD-MF01-01	39000	N	-	340000	10000000	-	N
PCB Congeners (ug/kg) [8]												
2',3,4,4',5-PENTACHLOROBIPHENYL (123)	1/1	8.59 - 8.59	-	9	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (170)	1/1	205 - 205	-	205	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (180)	1/1	35.3 - 35.3	-	35	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (167)	1/1	0.958 - 0.958	-	1	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3',4,4',5-PENTACHLOROBIPHENYL (118)	1/1	0.2935 - 0.2935	-	0.29	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4',5'-HEXACHLOROBIPHENYL (157)	1/1	4.16 - 4.16	-	4	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (189)	1/1	2.15 - 2.15	-	2	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4',5-HEXACHLOROBIPHENYL (156)	1/1	2.81 - 2.81	-	3	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4'-PENTACHLOROBIPHENYL (105)	1/1	4.23 - 4.23	-	4	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,4,4',5-PENTACHLOROBIPHENYL (114)	1/1	26 - 26	-	26	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
3,3',4,4',5,5'-HEXACHLOROBIPHENYL (169)	1/1	0.131 - 0.131	-	0.13	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
3,3',4,4',5-PENTACHLOROBIPHENYL (126)	1/1	0.238 - 0.238	-	0.2	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y

TABLE 6-12

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
SURFACE SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CONNECTICUT

Parameter	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
3,3',4,4'-TETRACHLOROBIPHENYL (77)	1/1	0.826 - 0.826	-	1	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
DECACHLOROBIPHENYL	1/1	45.9 - 45.9	-	46	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL DICHLOROBIPHENYLS	1/1	6.87 - 6.87	-	7	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL HEPTACHLOROBIPHENYLS	1/1	746 - 746	-	746	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL HEXACHLOROBIPHENYLS	1/1	302 - 302	-	302	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL NONACHLOROBIPHENYLS	1/1	64.5 - 64.5	-	65	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL OCTACHLOROBIPHENYLS	1/1	805 - 805	-	805	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL PENTACHLOROBIPHENYLS	1/1	239 - 239	-	239	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL TETRACHLOROBIPHENYLS	1/1	191 - 191	-	191	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL TRICHLOROBIPHENYLS	1/1	80.9 - 80.9	-	81	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
Metals (mg/kg)												
ALUMINUM	44/44	1640 - 18700	-	8676	SD-17	7800	N	-	-	-	22600	N
ANTIMONY	6/36	4.1 - 16.5	1.1 - 13.4	4	MF-A+400	3.1	N	-	27	8200	ND	Y
ARSENIC	37/44	1.9 - 28.1	1.8 - 7.1	7	OU3-A1-SS01-0002	0.43	C	750	10	10	11.6	Y
BARIUM	43/44	18.9 - 17000	12.9 - 12.9	1500	MFP-5	550	N	690000	4700	140000	329	Y
BERYLLIUM	29/43	0.23 - 1.3	0.17 - 1.2	0.5	SLE-G7	16	C	1300	2	2	1.3	N
CADMIUM	22/43	0.083 - 18.9	0.21 - 4.1	2	RM-SD-MF02-03	7.8	N	1800	34	1000	1.4	Y
CALCIUM	39/44	566 - 27500	1200 - 3420	3103	BP70AC-S528,E172(0.6-1.5)	-	-	-	-	-	7420	N
CHROMIUM	44/44	7.8 - 900	-	73	RM-SD-MF03-03	23	N	270	100	100	35.2	Y
COBALT	44/44	2 - 30.9	-	10	MFP-5	470	N	-	1000	2500	12.4	N
COPPER	53/61	15 - 42000	6.3 - 300	2487	MFP-5	310	N	-	2500	76000	123	Y
IRON	44/44	5580 - 61400	-	19367	OU3-A1-SS01-0002	2300	N	-	-	-	24100	N(9)
LEAD	200/227	9.4 - 24700	100 - 100	825	MFP-5	400	N	-	500	1000	344	Y
MAGNESIUM	44/44	571 - 81600	-	11813	MFP-1	-		-	-	-	5690	N
MANGANESE	44/44	71.1 - 934	-	252	RM-SD-MF03-03	160	N	-	1600	47000	660	Y
MERCURY	23/44	0.054 - 4.3	0.05 - 0.27	0.3	MF-AZ+300	2.3	N	10	20	610	0.28	Y
NICKEL	44/44	6 - 530	-	81	MFP-1	160	N	13000	1400	7500	40.4	Y
POTASSIUM	38/44	435 - 3240	255 - 1040	1179	SD-17	-		-	-	-	2680	N
SELENIUM	7/44	0.27 - 3.6	0.28 - 7.3	1	MF-AZ+300	39	N	-	340	10000	3.3	N
SILVER	10/43	0.33 - 8.7	0.17 - 2.6	1	RM-SD-MF02-03	39	N	-	340	10000	3.3	N
SODIUM	28/41	41.3 - 42500	47.5 - 1190	1435	MFP-5	-		-	-	-	248	N
THALLIUM	3/44	0.24 - 5.2	0.16 - 4	1	MF-AZ+300	0.55	N	-	5.4	160	ND	Y
VANADIUM	44/44	9.6 - 101	-	33	OU3-A1-SD02-0002	55	N	-	470	14000	81.9	Y
ZINC	41/44	33.5 - 2930	92.9 - 146	540	MFP-2	2300	N	-	20000	610000	604	Y
Dioxin (ug/kg)						-						
TOXICITY EQUIVALENCY (TEQ)	20/20	0.0044 - 17.54	-	1.225	MFP-5	0.0043	C	-	-	-	-	Y
Asbestos (%)												
ASBESTOS	92/193	0.99 - 80	0.1 - 0.1	5	PP EF+050, MF A+400	1	C	-	-	-	-	Y
Total Organic Carbon (mg/kg)												
TOTAL ORGANIC CARBON	4/4	5310 - 71700	-	32478	OU3-A1-SD02-0002	-	-	-	-	-	-	N

1 Based on current USEPA Region III guidance (USEPA Region III, 10-1-98). Residential Soil Ingestion is used for soil and sediment. Value for noncarcinogens is based on a target hazard quotient of 0.1. Value for carcinogens is based on a cancer risk of 1E-6.

2 COPC screening level based on noncarcinogenic (N)/carcinogenic (C) effects.

3 USEPA Soil Screening Levels (USEPA, May 1996).

TABLE 6-12

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
SURFACE SOIL/SEDIMENT
FERRY CREEK, STRATFORD, CONNECTICUT

Parameter	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)

4 CTDEP, January 1996. In some cases, calculated or surrogate or ceiling value presented as detailed in Table 6-1.
5 Maximum background concentrations presented for inorganics only because background concentrations for organics were not used in COPC selection.
6 COPC selection criteria discussed in Section 6.2 and presented/defined in Table 6-1. Chemical was selected as a COPC (Y = yes) if maximum detected concentration exceeded screening levels, except that noncarcinogenic inorganics detected at concentrations exceeding screening levels (based on Region III criteria) but less than Region III risk-based concentrations AND maximum background concentration were not selected as COPCs.
7 Vinyl chloride was not accepted as a COPC due to the low frequency of detection and only a slight exceedance of the selection criteria.
8 PCB Congeners will be evaluated qualitatively in the uncertainty section.
9 USEPA Region I does not advocate quantitative risk assessment of iron.
10 Value is based on OSWER soil screening level for residential land use (USEPA, July 14, 1994).
ND Compound was not present at detectable concentrations in background samples.
- Not available or not applicable.

TABLE 6-13

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
ALL SOIL/SEDIMENT (0-15')
FERRY CREEK, STRATFORD, CONNECTICUT
PAGE 1 OF 4

	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
Volatile Organic Compounds (ug/kg)												
1,1,1-TRICHLOROETHANE	4/49	2 - 44	10 - 6400	88	MF-SO-MW102-0406	160000	N	1200000	500000	1000000	-	N
1,1,2,2-TETRACHLOROETHANE	1/49	2 - 2	10 - 6400	86	BP78AC-S453,E162(4.6-5.0)	3200	C	600	3100	29000	-	N
1,1-DICHLOROETHANE	10/49	5 - 3400	10 - 1300	97	RM-SD-MF03-03	780000	N	1300000	500000	1000000	-	N
1,1-DICHLOROETHENE	4/49	2 - 9	10 - 6400	86	RM-SD-MF01-01	1100	C	70	1000	9500	-	N
1,2-DICHLOROETHENE (TOTAL)	7/49	4 - 66	10 - 6400	88	MF-SO-MW103-0810	70000	N	1200000	500000	1000000	-	N
2-BUTANONE	8/49	8 - 250	10 - 6400	94	MF-SO-SB7-1416	4700000	N	-	500000	1000000	-	N
2-HEXANONE	1/49	40 - 40	10 - 6400	87	OU3-A1-SD02-0204	310000	N	-	500000	1000000	-	N
ACETONE	8/49	37 - 810	10 - 10000	229	MF-SO-SB7-1416	780000	N	100000000	500000	1000000	-	N
BENZENE	3/49	2 - 31	10 - 6400	87	RM-SD-MF01-02	22000	C	800	21000	200000	-	N
CARBON DISULFIDE	6/49	3 - 130	10 - 6400	89	MF-SO-MW103-1416	780000	N	720000	500000	1000000	-	N
CHLOROBENZENE	6/49	2 - 95	10 - 6400	88	RM-SD-MF01-02	160000	N	130000	500000	1000000	-	N
ETHYLBENZENE	3/49	4 - 12	10 - 6400	86	OU3-A1-SB03-0608	780000	N	400000	500000	1000000	-	N
METHYLENE CHLORIDE	1/49	130 - 130	11 - 6400	91	SD-17	85000	C	13000	82000	760000	-	N
TETRACHLOROETHENE	5/49	8 - 48	10 - 6400	88	BP68AC-S535,E172(5.2-5.5)	12000	C	11000	12000	110000	-	N
TOLUENE	7/49	1 - 250	10 - 6400	92	OU3-A1-SB03-0608	1600000	N	650000	500000	1000000	-	N
TRICHLOROETHENE	6/49	3 - 120	10 - 6400	90	MF-SO-MW103-0810	58000	C	5000	56000	520000	-	N
VINYL CHLORIDE	4/49	1 - 40	10 - 6400	87	RM-SD-MF01-02	340	C	30	320	3000	-	N(7)
XYLENES, TOTAL	5/49	4 - 100	10 - 6400	88	OU3-A1-SB03-0608	16000000	N	410000	500000	1000000	-	N
Semivolatile Organic Compounds (ug/kg)												
2,4-DIMETHYLPHENOL	18/80	37 - 3800	330 - 12000	629	OU3-A1-SB03-0608	160000	N	-	1000000	2500000	-	N
2-METHYLNAPHTHALENE	19/80	30 - 580	330 - 15000	654	OU3-A1-SB06-0810	160000	N	-	1000000	2500000	-	N
2-METHYLPHENOL	15/80	36 - 790	330 - 15000	683	MF-SO-MW102-0406	390000	N	-	1000000	2500000	-	N
3,3'-DICHLOROBENZIDINE	1/80	540 - 540	330 - 15000	662	MFP-5	1400	C	-	1400	13000	-	N
4-METHYLPHENOL	23/80	96 - 4800	330 - 15000	692	MF-SO-MW103-0810	39000	N	-	340000	2500000	-	N
4-NITROPHENOL	2/80	80 - 460	820 - 38000	1719	MF-SO-MW103-0810	63000	N	-	540000	2500000	-	N
ACENAPHTHENE	33/80	26 - 3000	340 - 12000	512	OU3-A1-SB06-0810	470000	N	-	1000000	2500000	-	N
ACENAPHTHYLENE	44/80	23 - 1800	340 - 15000	648	OU3-A1-SB06-0810, RM-SD-MF02-03	-	-	-	1000000	2500000	-	N
ANTHRACENE	53/80	21 - 5200	340 - 12000	614	OU3-A1-SB06-0810	2300000	N	-	1000000	2500000	-	N
BENZO(A)ANTHRACENE	66/80	33 - 14000	350 - 12000	1456	OU3-A1-SB06-0810, OU3-A1-SB06-0810	880	C	-	1000	7800	-	Y
BENZO(A)PYRENE	68/80	32 - 13000	340 - 12000	1342	OU3-A1-SB06-0810	88	C	-	1000	1000	-	Y
BENZO(B)FLUORANTHENE	71/80	34 - 13000	350 - 12000	1918	MF-SO-TP3-0405, MF-SO-TP3-0405	880	C	-	1000	7800	-	Y
BENZO(G,H,I)PERYLENE	60/80	47 - 7600	350 - 15000	922	OU3-A1-SB06-0810	-	-	-	1000000	2500000	-	N
BENZO(K)FLUORANTHENE	62/80	32 - 10000	350 - 12000	1458	OU3-A1-SB06-0810	8800	C	-	8400	78000	-	Y
BIS(2-ETHYLHEXYL)PHTHALATE	33/80	22 - 12000	340 - 15000	1401	OU3-A1-SD01-0002	46000	C	31000000	44000	410000	-	N
BUTYLBENZYL PHTHALATE	13/80	20 - 1800	330 - 15000	710	RM-SD-MF02-02	1600000	N	930000	1000000	2500000	-	N
CARBAZOLE	42/80	26 - 3100	340 - 12000	493	MF-SO-TP3-0405	32000	C	-	31000	290000	-	N
CHRYSENE	69/80	36 - 14000	350 - 12000	1832	OU3-A1-SB06-0810, OU3-A1-SB06-0810	88000	C	-	84000	780000	-	N
DI-N-BUTYL PHTHALATE	17/80	26 - 1600	330 - 12000	583	OU3-A1-SD03-0002	780000	N	2300000	1000000	2500000	-	N
DI-N-OCTYL PHTHALATE	7/80	210 - 9200	330 - 15000	790	RM-SD-MF02-03	160000	N	10000000	1000000	2500000	-	N
DIBENZO(A,H)ANTHRACENE	29/80	36 - 1500	330 - 15000	654	OU3-A1-SS02-0002	88	C	-	84	780	-	Y
DIBENZOFURAN	27/80	25 - 1200	330 - 15000	581	OU3-A1-SB06-0810	31000	N	-	270000	2500000	-	N
DIETHYL PHTHALATE	7/80	54 - 860	330 - 15000	684	RM-SD-MF02-02	6300000	N	2000000	1000000	2500000	-	N

TABLE 6-13

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
ALL SOIL/SEDIMENT (0-15')
FERRY CREEK, STRATFORD, CONNECTICUT

	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
DIMETHYL PHTHALATE	6/80	67 - 460	330 - 15000	685	MF-SO-MW102-0406	78000000	N	-	1000000	2500000	-	N
FLUORANTHENE	69/80	46 - 33000	350 - 4100	3079	OU3-A1-SB06-0810	310000	N	-	1000000	2500000	-	N
FLUORENE	42/77	23 - 3800	340 - 12000	479	OU3-A1-SB06-0810	310000	N	-	1000000	2500000	-	N
INDENO(1,2,3-CD)PYRENE	65/80	24 - 7000	340 - 12000	884	OU3-A1-SB06-0810	880	C	-	840	7800	-	Y
N-NITROSODIPHENYLAMINE	5/80	47 - 1300	330 - 12000	592	OU3-A1-SB03-0608	130000	C	-	130000	1200000	-	N
NAPHTHALENE	30/80	24 - 1100	330 - 12000	507	OU3-A1-SB03-0608	160000	N	-	1000000	2500000	-	N
PENTACHLOROPHENOL	1/80	30 - 30	820 - 38000	1723	OU3-A1-SB11-0002	5300	C	-	5100	48000	-	N
PHENANTHRENE	70/80	40 - 24000	350 - 12000	1968	OU3-A1-SB06-0810	-	-	-	1000000	2500000	-	N
PHENOL	24/78	89 - 9800	330 - 15000	1141	OU3-A1-SB07-0608	4700000	N	-	1000000	2500000	-	N
PYRENE	71/80	48 - 31000	350 - 4100	2856	OU3-A1-SB06-0810	230000	N	-	1000000	2500000	-	N
Pesticides/PCBs (ug/kg)												
4,4'-DDD	19/90	0.99 - 42	3.3 - 94	8	RM-SD-MF03-03	2700	C	-	2600	24000	-	N
4,4'-DDE	31/89	1.2 - 89	2.6 - 94	8	SLE-G2	1900	C	-	1800	17000	-	N
4,4'-DDT	30/86	1.3 - 190	2.6 - 94	11	SLE-G2	1900	C	-	1800	17000	-	N
ALDRIN	12/90	0.75 - 37	1.3 - 49	4	MF-SO-SB7-1416	38	C	3000	36	340	-	Y
ALPHA-BHC	10/90	0.083 - 7.8	1.7 - 49	4	OU3-A1-SD03-0204	100	C	800	97	910	-	N
ALPHA-CHLORDANE	33/90	0.48 - 230	1.3 - 32	9	SLE-G2	1800	C	20000	490	2200	-	N
AROCLOR-1248	5/90	44 - 650	26 - 1950	91	MF-SO-MW103-0810	320	C	-	1000	10000	-	Y
AROCLOR-1254	3/90	119 - 8400	26 - 1950	175	MF-SO-SB7-1416	160	N	-	1000	10000	-	Y
AROCLOR-1260	4/90	236 - 900	26 - 1950	98	SD-16	320	C	-	1000	10000	-	Y
AROCLOR-1262	54/88	23 - 130000	32 - 460	3354	MFP-5	320	C	-	1000	10000	-	Y
AROCLOR-1268	62/91	19 - 270000	32 - 820	5572	MFP-5	320	C	-	1000	10000	-	Y
BETA-BHC	6/89	0.16 - 11	1.3 - 49	4	RM-SD-MF02-01	350	C	-	340	3200	-	N
DELTA-BHC	9/89	0.14 - 9.2	1.7 - 49	4	PP-EF+100	-	-	-	97	910	-	N
DIELDRIN	22/90	0.49 - 28	2.6 - 94	7	RM-SD-MF03-03	40	C	1000	38	360	-	N
ENDOSULFAN I	10/91	1.4 - 74	1.3 - 49	5	MF-SO-SB8-0608	47000	N	-	410000	1200000	-	N
ENDOSULFAN II	7/84	1.4 - 28	3.2 - 94	8	PP-DDE+110	47000	N	-	410000	1200000	-	N
ENDOSULFAN SULFATE	13/88	1.4 - 82	2.6 - 94	9	RM-SD-MF02-02	-	-	-	410000	1200000	-	N
ENDRIN	11/89	0.46 - 180	2.6 - 94	9	RM-SD-MF03-03	2300	N	-	20000	610000	-	N
ENDRIN ALDEHYDE	17/89	7.5 - 93	3.2 - 350	13	OU3-A1-SD03-0204	-	-	-	20000	610000	-	N
ENDRIN KETONE	6/89	2.5 - 200	2.6 - 94	10	PP-DDE+110	-	-	-	20000	610000	-	N
GAMMA-BHC (LINDANE)	3/89	0.54 - 5.6	1.3 - 49	4	OU3-A1-SD03-0204	490	C	-	20000	610000	-	N
GAMMA-CHLORDANE	38/86	0.85 - 130	1.3 - 25	9	MFP-5	1800	C	20000	490	2200	-	N
HEPTACHLOR	17/90	0.25 - 12	1.7 - 49	4	PP-EF+100	140	C	100	140	1300	-	N
HEPTACHLOR EPOXIDE	19/88	0.22 - 63	1.3 - 32	4	MF-SO-SB7-1416	70	C	5000	67	630	-	N
METHOXYCHLOR	9/88	3.3 - 180	13 - 490	40	RM-SD-MF01-01	39000	N	-	340000	10000000	-	N
PCB Congeners (ug/kg) (8)												
2',3,4,4',5-PENTACHLOROBIPHENYL (123)	1/1	8.59 - 8.59	-	9	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (170)	1/1	205 - 205	-	205	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (180)	1/1	35.3 - 35.3	-	35	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (167)	1/1	0.958 - 0.958	-	1	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3',4,4',5-PENTACHLOROBIPHENYL (118)	1/1	0.2935 - 0.2935	-	0.3	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4',5'-HEXACHLOROBIPHENYL (157)	1/1	4.16 - 4.16	-	4	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y

TABLE 6-13

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
ALL SOIL/SEDIMENT (0-15')
FERRY CREEK, STRATFORD, CONNECTICUT

	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (189)	1/1	2.15 - 2.15	-	2	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4',5-HEXACHLOROBIPHENYL (156)	1/1	2.81 - 2.81	-	3	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,3',4,4'-PENTACHLOROBIPHENYL (105)	1/1	4.23 - 4.23	-	4	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
2,3,4,4',5-PENTACHLOROBIPHENYL (114)	1/1	26 - 26	-	26	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
3,3',4,4',5,5'-HEXACHLOROBIPHENYL (169)	1/1	0.131 - 0.131	-	0.1	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
3,3',4,4',5-PENTACHLOROBIPHENYL (126)	1/1	0.238 - 0.238	-	0.2	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
3,3',4,4'-TETRACHLOROBIPHENYL (77)	1/1	0.826 - 0.826	-	1	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
DECACHLOROBIPHENYL	1/1	45.9 - 45.9	-	46	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL DICHLOROBIPHENYLS	1/1	6.87 - 6.87	-	7	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL HEPTACHLOROBIPHENYLS	1/1	746 - 746	-	746	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL HEXACHLOROBIPHENYLS	1/1	302 - 302	-	302	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL NONACHLOROBIPHENYLS	1/1	64.5 - 64.5	-	65	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL OCTACHLOROBIPHENYLS	1/1	805 - 805	-	805	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL PENTACHLOROBIPHENYLS	1/1	239 - 239	-	239	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL TETRACHLOROBIPHENYLS	1/1	191 - 191	-	191	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
TOTAL TRICHLOROBIPHENYLS	1/1	80.9 - 80.9	-	81	OU3-A1-SD03-0002	320	C	-	1000	10000	-	Y
Metals (mg/kg)												
ALUMINUM	91/91	443 - 32100	-	9093	OU3-A1-SD04-0204	7800	N	-	-	-	22600	N(9)
ANTIMONY	12/72	2.9 - 16.5	1.1 - 13.4	3	MF-A+400	3.1	N	-	27	8200	ND	Y
ARSENIC	75/91	0.83 - 263	1.3 - 7.8	14	MF-SO-SB2-1416	0.43	C	750	10	10	11.6	Y
BARIUM	90/91	2.4 - 17000	12.9 - 12.9	1524	MFP-5	550	N	690000	4700	140000	329	Y
BERYLLIUM	59/89	0.23 - 2	0.032 - 1.2	0.45	MF-SO-SB2-1416	16	C	1300	2	2	1.3	N
CADMIUM	38/89	0.083 - 37	0.062 - 4.1	2	OU3-A1-SD02-0204	7.8	N	1800	34	1000	1.4	Y
CALCIUM	84/91	130 - 27500	346 - 3420	3036	BP70AC-S528,E172(0.6-1.5)	-	-	-	-	-	7420	N
CHROMIUM	90/91	5.1 - 900	0.72 - 0.72	65	RM-SD-MF03-03	23	N	270	100	100	35.2	Y
COBALT	91/91	0.3 - 30.9	-	10	MFP-5	470	N	-	1000	2500	12.4	N
COPPER	159/231	2.1 - 97900	2.7 - 300	2104	MF-SO-MW103-0608	310	N	-	2500	76000	123	Y
IRON	91/91	729 - 89900	-	21573	MF-SO-MW103-0810	2300	N	-	-	-	24100	N(9)
LEAD	379/467	3.3 - 25600	3.1 - 100	780	MF-SO-MW103-0608	400	N	-	500	1000	344	Y
MAGNESIUM	91/91	234 - 81600	-	11028	MFP-1	-	-	-	-	-	5690	N
MANGANESE	91/91	14.6 - 934	-	229	RM-SD-MF03-03	160	N	-	1600	47000	660	Y
MERCURY	41/91	0.054 - 9.4	0.049 - 0.27	0.45	BP68AC-S535,E172(5.2-5.5)	2.3	N	10	20	610	0.28	Y
NICKEL	91/91	0.78 - 566	-	78	MF-SO-MW103-0608	160	N	13000	1400	7500	40.4	Y
POTASSIUM	85/91	147 - 3520	255 - 1040	1272	OU3-A1-SS05-0204	-	-	-	-	-	2680	N
SELENIUM	19/91	0.26 - 8.8	0.27 - 7.3	1	MF-SO-SB2-1416	39	N	-	340	10000	3.3	N
SILVER	30/90	0.31 - 8.7	0.17 - 2.6	1	RM-SD-MF02-03	39	N	-	340	10000	3.3	N
SODIUM	52/87	41.3 - 42500	29.2 - 1200	1038	MFP-5	-	-	-	-	-	248	N
THALLIUM	8/91	0.24 - 5.2	0.15 - 4	1	MF-AZ+300	0.55	N	-	5.4	160	ND	Y
VANADIUM	91/91	1.1 - 143	-	31	OU3-A1-SD04-0204	55	N	-	470	14000	81.9	Y
ZINC	87/90	4.3 - 24000	92.9 - 146	779	MF-SO-MW103-0608	2300	N	-	20000	610000	604	Y
Dioxin (ug/kg)												
TOXICITY EQUIVALENCY (TEQ)	47/47	0.0044 - 17.54		0.936	MFP-5	0.0043	C	-	-	-	-	Y
Asbestos (%)												

TABLE 6-13

SELECTION OF CHEMICALS OF POTENTIAL CONCERN
AREA A-1, MORGAN FRANCIS PROPERTIES
ALL SOIL/SEDIMENT (0-15')
FERRY CREEK, STRATFORD, CONNECTICUT

	Frequency	Range Of Detects	Range Of Nondetects	Average	Location of Maximum	COPC Screening Level (1)	N/C (2)	SSL Inhalation (3)	State Residential Direct Exposure (4)	State Industrial Direct Exposure (4)	Background Concentration (5)	Select As COPC? (6)
ASBESTOS	178/363	0.99 - 85	0.1 - 0.1	6	MF-SO-MW103-1012	1	C	-	-	-	-	Y

1 Based on current USEPA Region III guidance (USEPA Region III, 10/1/98). Residential Soil Ingestion is used for soil and sediment. Value for noncarcinogens is based on a target hazard quotient of O.I. Value for carcinogens is based on a cancer risk of IE-6.
2 COPC screening level based on noncarcinogenic (N)/carcinogenic (C) effects.
3 USEPA Soil Screening Levels (USEPA, May 1996).
4 CTDEP, January 1996. In some cases, calculated or surrogate or ceiling value presented as detailed in Table 6-1.
5 Maximum background concentrations presented for inorganics only because background concentrations for organics were not used in COPC selection.
6 COPC selection criteria discussed in Section 6.2 and presented/defined in Table 6-1. Chemical was selected as a COPC (Y = yes) if maximum detected concentration exceeded screening levels, except that noncarcinogenic inorganics detected at concentrations exceeding screening levels (based on Region III criteria) but less than Region III risk-based concentrations AND maximum background concentration were not selected as COPCs.
7 Vinyl chloride was not accepted as a COPC due to the low frequency of detection and only a slight exceedance of the selection criteria.
8 PCB Congeners will be evaluated qualitatively in the uncertainty section.
9 USEPA Region I does not advocate quantitative risk assessment of aluminum or iron.
10 Value is based on OSWER soil screening level for residential land use (USEPA, July 14, 1994).
ND Compound was not present at detectable concentrations in background samples.
- Not available or not applicable.