

Table 1. Results of screening evaluation for surface water collected from Upper Gold Run, Gold Run Pond, and Lower Gold Run in 1998

Chemical	Screening Values ^a		Upper Gold Run		Gold Run Pond		Lower Gold Run	
	Chronic	Acute	SW11-7		SW11-3	SW11-6	SW11-1	SW11-2
Total Metals								
Chromium	74	570	10 U		10 U	17.0	10 U	10 U
Copper	9	13	20 U *		20 U *	27.0 **	20 U *	20 U *
Lead	2.5	65	10 U *		10 U *	20 *	10 U *	12 *
Total mercury	0.77	1.4	0.2 U		0.28	0.82 *	0.2 U	0.2 U
Zinc	120	120	25		27	27	29	27
Organic Compounds								
Bis[2-ethylhexyl]phthalate	32	--	2.0 U		2.0 U	2.0 U	5.0	1.0
Di-n-butylphthalate	33	--	4.0		2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	350	--	21		3.0	3.0		

Note: Concentrations are µg/L.

-- screening value not available

* value exceeds chronic screening value

** value exceeds acute screening value

EPA - U.S. Environmental Protection Agency

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values for metals are EPA ambient water quality criteria (U.S. EPA 1999). Screening values for organic compounds are EPA ecotox thresholds (U.S. EPA 1996).

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Table 2. Results of screening evaluation for surface water collected from Gold Run Pond in 1999

Chemical	Screening Values ^a		Gold Run Pond								Mean
	Chronic	Acute	EA-1-SW	EA-1A-SW ^b	EA-2-SW	EA-3-SW	EA-4-SW	EA-5-SW	EA-6-SW		
Metals											
Aluminum	87	--	42.7	37.9	37.9 U	35.2	67.5	37.9 U	44.6	37.2	
Antimony	30	--	2.6	1.0 U	1.3	1.15	1.8	2.1	2.1	1.5	
Arsenic	150	340	1.7 U	1.7 U	1.7 U	1.7 U	1.7	1.7 U	1.7 U	1.1	
Barium	3.9	--	291 *	49.8 *	203 *	137.05 *	218 *	260 *	239 *	184 *	
Chromium	74	570	0.7 U	9.0	7.0	3.9	6.2	10.7	4.9	7.0	
Copper	9.0	13	6.3	12.2 *	13.6 **	12.4 *	15.4 **	14 **	15.7 **	13.9 *	
Iron	1,000	--	36.7	102	37.9	89.4	164	139	144	123	
Manganese	80	--	2.4 U	47.9	53.2	39.4	78.7	67.4	78.8	60.9	
Nickel	52	470	2.4 U	2.5	2.8	2.4 U	2.9	2.7	2.7	2.5	
Zinc	120	120	6.9	13.1	39.4	22.4	49.5	54.5	44.1	37.2	

Note: Concentrations are $\mu\text{g/L}$ dissolved.

- screening value not available
- value exceeds chronic screening value
- value exceeds acute screening value
- U.S. Environmental Protection Agency
- undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are EPA ambient water quality criteria (U.S. EPA 1991, 1999) or EPA ecotox thresholds (U.S. EPA 1996).

^b Field duplicate.

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Table 3. Results of screening evaluation for sediments collected in Upper Gold Run in 1994/1998

Chemical	Screening Values ^a		Upper Gold Run				
	Lower	Upper	SS-11-SD-1	SS-11-SD-2	S11-7	S11-8	Mean
Metals and Cyanide							
Arsenic	6.0	33	8.4 *	3.0	10 *	4.5 U	5.9
Barium	--	--			60	80	70
Beryllium	--	--	1.3	0.68	2.8	12	4.2
Cadmium	0.6	10	1.4 *	1.0 U	1.8 *	2.2 U *	1.2 *
Chromium	26	110	110 *	26	64 *	290 **	123 **
Chromium, hexavalent	--	--			12 U	11 U	11.5 U
Copper	16	110	130 **	65 *	150 **	480 **	206 **
Lead	31	250	97 *	47 *	93 *	740 **	244 *
Total mercury	0.2	2	0.13	0.1 U	4.9 **	1.9 *	1.7 *
Nickel	16	75	34 *	11	36 *	100 **	45.3 *
Selenium	--	--	0.5 U *	0.5 U	1.5 *	11 U	1.9
Zinc	120	820	570 *	190 *	800 *	1,800 **	840 **
Cyanide	--	--	2.0 U	2.0 U			2.0 U
Semivolatile Organic Compounds							
Bis[2-ethylhexyl]phthalate	--	--	0.73	0.09	8.3 U	7.6 U	2.2
Butylbenzyl phthalate	--	--					0.29
Carbazole	--	--	0.37	0.4 U			0.65
Dibenzofuran	--	--	1.1	0.4 U			2.1
Di-n-octyl phthalate	--	--	0.074	0.4 U	8.3 U	7.6 U	
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	0.070	0.67	0.29 *	0.4 U *			0.25 *
Acenaphthene	0.016	0.5	0.71 **	0.4 U *	8.3 U **	7.6 U **	2.2 **
Acenaphthylene	0.044	0.64					
Anthracene	0.22	1.0952 ^b	1.2 **	0.07	8.3 U **	7.6 U **	2.3 **
Benz[a]anthracene	0.32	4.3808 ^b	4.5 **	0.17	8.3 U *	1.4 *	2.6 *
Benzo[a]pyrene	0.37	4.2624 ^b	0.094	0.14	8.3 U *	1.2 *	1.4 *
Benzo[b]fluoranthene	--	--	2.4	0.19	8.3 U	1.1	2.0
Benzo[ghi]perylene	0.17	0.9472 ^b	0.4 U *	0.34 *	8.3 U **	7.6 U **	2.1 **
Benzo[k]fluoranthene	0.24	3.9664 ^b	1.1 *	0.06	8.3 U **	1.5 *	1.7 *
Chrysene	0.34	1.3616 ^b	2.3 **	0.19	1.1 *	1.7 **	1.3 *
Dibenz[a,h]anthracene	0.06	0.3848 ^b	0.4 U *	0.1 *	8.3 U **	7.6 U **	2.1 **
Fluoranthene	0.75	3.0192 ^b	11 **	0.45	2.1 *	4.2 **	4.4 **
Fluorene	0.19	0.4736 ^b	2.3 **	0.4 U *	8.3 U **	7.6 U **	2.6 **

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Table 3. (cont.)

Chemical	Screening Values ^a		Upper Gold Run			
	Lower	Upper	SS-11-SD-1	SS-11-SD-2	S11-7	S11-8
Indeno[1,2,3-cd]pyrene	0.20	0.95 ^b	0.21 *	0.32 *	8.3 U **	7.6 U **
Naphthalene	0.16	2.1	0.34 *	0.4 U *	8.3 U **	7.6 U **
Phenanthrene	0.56	2.812 ^b	7 **	0.35	1.4 *	3.1 **
Pyrene	0.49	2.516 ^b	0.69 *	0.31	1.6 *	3.1 **
Polychlorinated Biphenyls						
Aroclor [®] 1016	0.007	0.1569 ^b	0.02 U *	0.02 U *	0.05 U *	0.058 *
Aroclor [®] 1260	0.005	0.071 ^b	0.024 *	0.051 *	0.063 *	0.086 **
Conventional Variables						
Total organic carbon	--	--			1,200	4,720
						2,960

Note: Concentrations are mg/kg dry weight.

- screening value not available
- * value exceeds lower screening value
- ** value exceeds upper screening value
- TOC - total organic carbon
- U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).

^b Adjusted for mean fraction TOC 0.00296.

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Table 4. Results of screening evaluation for sediments collected in Gold Run Pond in 1994/1998

Chemical	Screening Values ^a		Gold Run Pond							
	Lower	Upper	SS-11-SD-3	SS-11-SD-4	S11-3	S11-4	S11-5	S11-6	Mean	
Metals and Cyanide										
Arsenic	6.0	33	20	4.5	2.8	1.5	1.6	2.3	5.5	
Barium	--	--			34	31	19	64	37.0	
Beryllium	--	--	1.7	0.98	0.4	0.38 U	0.33 U	0.41	0.64	
Cadmium	0.6	10	1.2 U	1.0 U	0.85	0.77	0.37	0.7	0.63	*
Chromium	26	110	520	39	56	18	9.8	49	115	**
Copper	16	110	130	30	78	50	36	74	66.3	*
Lead	31	250	190	25	120	59	22	180	99.3	*
Total mercury	0.2	2	0.16 U	0.1 U	1.4	0.3	0.053 U	1.6	0.58	*
Nickel	16	75	40	15	23	8.7	6.9	19	18.8	*
Silver	1.0	3.7	1.8 U	1.5 U	0.66 U	0.75 U	0.65 U	2.6	0.88	
Thallium	--	--	0.5 U	0.5 U	0.63 U	0.75 U	0.65 U	0.71	0.37	
Zinc	120	820	350	110	200	170	63	240	189	*
Semi-volatile Organic Compounds										
Bis[2-ethylhexyl]phthalate	--	--	1.8	0.16	1.2	4.9	8.8 U	9.5 U	2.9	
Butylbenzyl phthalate	--	--	0.13	0.46 U					0.18	
Carbazole	--	--	0.29	0.46 U					0.26	
Dibenzofuran	--	--	0.11	0.46 U					0.17	
Di-n-octyl phthalate	--	--	0.73 U	0.46 U	8.9 U	7.7	8.8 U	9.5 U	3.6	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	0.016	0.5	0.73 U	0.46 U	1.4	10 U	8.8 U	9.5 U	2.7	**
Acenaphthylene	0.044	0.64	0.12	0.46 U					0.18	*
Anthracene	0.22	3.979 ^b	0.53	0.46 U	2.7	10 U	8.8 U	1.5	2.4	*
Benz[a]anthracene	0.32	15.91 ^b	2.8	0.13	7.4	2.5	1.1	4.0	3.0	*
Benzo[a]pyrene	0.37	15.48 ^b	2.8	0.12	7.1	2.2	8.8 U	3.5	3.4	*
Benzo[b]fluoranthene	--	--	4.4	0.18	6.7	2.2	8.8 U	3.2	3.5	
Benzo[ghi]perylene	0.17	3.441 ^b	7.8	0.081	3.8	1.2	8.8 U	1.5	3.1	*
Benzo[k]fluoranthene	0.24	14.41 ^b	1.1	0.063	7.3	2.7	8.8 U	4.3	3.3	*
Chrysene	0.34	4.946 ^b	3	0.18	6.9	3.2	1.3	5.3	3.3	*
Dibenz[a,h]anthracene	0.06	1.398 ^b	2.1	0.46 U	1.4	10 U	8.8 U	9.5 U	3.0	**
Fluoranthene	0.75	10.97 ^b	5.6	0.35	17	7	2.6	10	7.1	*
Fluorene	0.19	1.6 ^b	2.8	0.46 U	1.3	10 U	8.8 U	9.5 U	3.1	**

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Table 4. (cont.)

Chemical	Screening Values ^a		Gold Run Pond							
	Lower	Upper	SS-11-SD-3	SS-11-SD-4	S11-3	S11-4	S11-5	S11-6	Mean	
Indeno[1,2,3-cd]pyrene	0.20	3.44 ^b	8.2	0.1	3.5	1.1	8.8	1.4	3.1	*
Naphthalene	0.16	2.1	0.24	0.46	8.9	10	8.8	9.5	3.2	**
Phenanthrene	0.56	10.22 ^b	2.7	0.11	13	4.6	2.3	6.7	4.9	*
Pyrene	0.49	9.14 ^b	3.8	0.29	17	5.2	2.1	8.3	6.1	*
Polychlorinated Biphenyls										
Aroclor [®] 1260	0.005	0.258 ^b	18	0.065	0.29	0.06	0.06	0.64	3.2	**
Conventional Variables										
Total organic carbon	--	--			10,700	14,700	8,850	8,760	10,753	

Note: Concentrations are mg/kg dry weight.

- screening value not available
- * value exceeds lower screening value
- ** value exceeds upper screening value
- TOC - total organic carbon
- U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998a,b).

^b Adjusted for mean fraction TOC 0.010753.

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Table 5. Results of screening evaluation for sediments collected in Lower Gold Run in 1994/1998

Chemical	Screening Values ^a		Lower Gold Run			
	Lower	Upper	SS-11-SD-5	S11-1	S11-2	Mean
Metals and Cyanide						
Arsenic	6.0	33	4.0	12 U	14 U	5.7
Barium	--	--		77	72	74.5
Beryllium	--	--	0.89	0.75	1.6	1.1
Chromium	26	110	77 *	21	120	72.7 *
Copper	16	110	41 *	40	60	47.0 *
Lead	31	250	22	22	35	26.3
Total mercury	0.2	2	0.1 U	0.38	8.3	2.9 **
Nickel	16	75	65 *	33	17	38.3 *
Zinc	120	820	17 *	140	140	150 *
Semivolatile Organic Compounds						
Bis[2-ethylhexyl]phthalate	--	--	0.4 U	0.073	0.1	0.12
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.016	0.5	0.4 U *	0.39 U	0.093	0.16 *
Anthracene	0.22	1,6743 ^b	0.4 U	0.39 U	0.24	0.21
Benz[a]anthracene	0.32	6,697 ^b	0.11	0.051	0.68	0.28
Benzof[a]pyrene	0.37	6,516 ^b	0.11	0.055	0.66	0.28
Benzof[b]fluoranthene	--	--	0.2	0.031	0.6	0.29
Benzof[ghi]perylene	0.17	1,448 ^b	0.065	0.39 U *	0.34	0.20 *
Benzof[k]fluoranthene	0.24	6,0635 ^b	0.4 U	0.065	0.73	0.33 *
Chrysene	0.34	2,0815 ^b	0.014	0.073	0.79	0.29
Dibenz[a,h]anthracene	0.06	0,5883 ^b	0.4 U *	0.39 U	0.063	0.15 *
Fluoranthene	0.75	4,6155 ^b	0.25	0.12	1.9	0.76 *
Fluorene	0.19	0,724 ^b	0.4 U *	0.39 U	0.15	0.18

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Table 5. (cont.)

Chemical	Screening Values ^a		Lower Gold Run			
	Lower	Upper	SS-11-SD-5	S11-1	S11-2	Mean
Indeno[1,2,3-cd]pyrene	0.20	1.45 ^b	0.074	0.39 U	0.36	0.21 *
Phenanthrene	0.56	4.2988 ^b	0.1	0.078	1.4	0.53 *
Pyrene	0.49	3.8463 ^b	0.23	0.091	1.3	0.54 *
Polychlorinated Biphenyls						
Aroclor® 1260	0.005	0.1086 ^b	8.5 **	0.05 U *	0.21 **	2.9 **
Conventional Variables						
Total organic carbon	--	--		3,900	5,150	4,525

Note: Concentrations are mg/kg dry weight.

-- - screening value not available

* - value exceeds lower screening value

** - value exceeds upper screening value

TOC - total organic carbon

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).

^b Adjusted for mean fraction TOC 0.004525.

Table 6. Results of screening evaluation for sediments collected in Areas 6 & 7 of the Southern Swale in 1998

Chemical	Screening Values ^a		S6-1 0 to 0.5	S6-2 0 to 0.5	S6-3 0 to 0.5	S6-4 0 to 0.5	S7-1	S7-2	Mean ^c
	Lower	Upper							
Metals									
Antimony	--	--	0.37 U	0.35 U	1 U	0.6 U	0.35 U	2.0	0.56
Arsenic	6	--	40 *	14 U *	42 U *	24 U *	36 *	24 U *	21.3 *
Barium	--	--	160	64	170	140	210	180	154
Beryllium	--	--	0.72 U	0.83	2.1 U	1.2 U	2.1	1.2 U	0.92
Cadmium	0.6	10	1.2 *	0.7 U	2.1 U *	1.2 U	1.6 *	1.3 *	1.0 *
Chromium Total	26	110	46 *	9.2	35 *	18	29 *	120 **	42.9 *
Copper	16	110	130 **	25 *	210 **	74 *	130 **	230 **	133 **
Lead	31	250	180 *	24	150 *	81 *	66 *	450 **	159 *
Mercury	0.2	2	0.059 U	0.056 U	0.25 *	0.095 U	0.14 U	0.24 U	0.09
Nickel	16	75	110 **	14	32 *	19 *	250 **	150 **	95.8 **
Zinc	120	820	1,600 **	310 *	1,100 **	1,000 **	1,500 **	870 **	1,063 **
Volatile Organic Compounds									
Hexanedioic acid	--	--						0.46 J	0.46 J
Methylene chloride	--	--					0.006 J	0.01 J	0.01 J
Trichloroethene	16.59 ^b	--					0.007 U	0.06 J	0.03 J
Semivolatile Organic Compounds									
3,3'-Dichlorobenzidine	--	--	9.8 U	0.54 U	18 U	32 U	9.4 U	0.15 J	0.09 J
bis[2-Ethylhexyl]phthalate	--	--	4.9 U	0.47 U	9 U	16 U	4.7 U	0.2 J	3.0 J
Butyl benzylphthalate	--	--	4.9 U	0.47 U	9 U	16 U	4.7 U	0.33 J	3.0 J
Di-n-octyl phthalate	--	--	4.9 U	0.47 U	9 U	16 U	4.7 U	0.52 J	3.0 J
Polycyclic Aromatic Hydrocarbons									
Benzo[a]pyrene	0.37	149.3 ^b	4.9 U *	0.47 U	9 U *	16 U *	4.7 U *	0.2 J	3.0 J *
Benzo[b]fluoranthene	--	--	4.9 U	0.47 U	9 U	16 U	4.7 U	0.21 J	3.0 J
Benzo[k]fluoranthene	0.24	139 ^b	4.9 U *	0.47 U	9 U *	16 U *	4.7 U *	0.18 J	3.0 J *
Indeno[1,2,3-cd]pyrene	0.2	33.19 ^b	4.9 U *	0.47 U *	9 U *	16 U *	4.7 U *	0.13 J	2.9 J *
Phenanthrene	0.56	98.52 ^b	4.9 U *	0.47 U	9 U *	16 U *	4.7 U *	0.13 J	2.9 J *
Total Petroleum Hydrocarbons									
Conventional	--	--	450	130	3,700	1,700	130	6,400	2,085
Total organic carbon	--	--	100,000	1,840	192,000	121,000			103,710

Note: Concentrations are mg/kg dry weight.

- screening value not available
- * value exceeds lower screening value
- ** value exceeds upper screening value
- J estimated

Table 6. (cont.)

TOC - total organic carbon
U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit
^a Screening values are from NJDEP (1998b).
^b Adjusted for mean fraction TOC 0.10371.
^c Mean values for nondetects are the average of the detection limits.

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Table 7. Results of screening evaluation for sediments collected in Gold Run Pond and Lower Gold Run in 1999

Metals	Screening Values ^a		Gold Run Pond							Lower Gold Run	
	Lower	Upper	EA-1-SD	EA-1A-SD ^b	EA-2-SD	EA-3-SD	EA-4-SD	EA-5-SD	EA-6-SD	Mean	EA-7-SD
Aluminum	--	--	8,540	5,020	3,235	4,530	3,660	12,200	5,590	5,999	6,260
Antimony	--	--	1.3	1.4	0.85	4.4	0.65	9.7	2.9	3.3	0.88
Arsenic	6.0	33	4.1	4.0	2.2	3.9	2.2	13.5 *	6.1 *	5.3	5.4
Barium	--	--	65.8	52	47.85	48.2	32.4	199	72.5	76.5	89.7
Beryllium	--	--	1.8	0.28	0.22	0.36	0.3	1.2	0.29	0.57	2.3
Cadmium	0.6	10	0.28	0.93	0.295	0.52	0.32	4.5 *	5.7 *	2.0 *	0.27
Chromium	26	110	47.9	75.8 *	26.2 *	321 **	27.8 *	685 **	153 **	212 **	38.1 *
Cobalt	--	--	11.4	5.8	4.15	4.5	6.9	7.8	3.3	5.9	8.7
Copper	16	110	144	92.4 *	42.95 *	76.2 *	74.8 *	563 **	226 **	184 **	58.2 *
Iron	20,000	40,000	30,000	16,200	15,600	14,000	13,700	23,700 *	14,100	17,367	35,600 *
Lead	31	250	64.5	272	78.95 *	78.7 *	162 *	507 **	342 **	223 *	53.3
Manganese	460	1,100	491	155	49.5	194	135	186	138	187	130
Total mercury	0.2	2	0.96	0.34	1.41	0.73	0.61	3.7 *	0.71 *	1.3 *	0.57
Methyl mercury	--	--	0.000551	0.000509	0.000936	0.00274	0.00231	0.00394	0.002	0.00208	0.00052
Nickel	16	75	19.1	23.2 *	13.1	22.6 *	24.2 *	75.9 **	40.4 *	32.9 *	33.3
Selenium	--	--	0.77	0.66	0.337	0.2	0.91	1.9	0.74	0.78	0.0
Thallium	--	--	0.14	0.16	0.102	0.15	0.14	0.31	0.21	0.11	0.04
Vanadium	--	--	29.2	23.8	16.95	22.6	17.9	52.1	32.8	28.1	21
Zinc	120	820	325	498	177	377	220	1710 **	608 *	584 *	168 *

Note: Concentrations are mg/kg dry weight.

- screening value not available
- * value exceeds lower screening value
- ** value exceeds upper screening value
- U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b) and Persaud et al. (1993).^b Field duplicate.

Table 8. Results of screening evaluation for sediments collected in Lower Gold Run in 2002

Metals	Screening Values ^a		WSE1	WSE3	WSE4	WSE5	Mean
	Lower	Upper					
Arsenic	6.0	33	1.5	1.7	2.6	3.1	2.2
Barium	--	--	--	--	67.6	39.1	53.4
Beryllium	--	--	1.6	0.5	--	--	1.1
Chromium	26	110	17.9	26	52.9	34.8	32.9 *
Copper	16	110	3.1	33.1	29.5	24.9	22.7 *
Lead	31	250	8.7	21.3	22.3	52.2	26.1 *
Mercury	0.2	2	--	0.1	--	--	0.1
Nickel	16	75	5.3	16.9	36.2	19.5	19.5 *
Zinc	120	820	11.4	132	190	162	124 *
Semivolatile Organic Compounds							
1,2-Benzphenanthrene	--	--	--	--	0.19	0.019	0.10
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	0.07	0.67	--	--	--	--	--
Acenaphthylene	0.044	0.64	--	--	0.015	0.43 U *	0.12 *
Anthracene	0.22	0.827 ^b	--	--	0.026	0.43 U	0.12
Benz[a]anthracene	0.32	3.308 ^b	--	--	0.13	0.024	0.077
Benzo[a]pyrene	0.37	3.218 ^b	--	--	0.17	0.017	0.094
Benzo[b]fluoranthene	--	--	--	--	0.24	0.034	0.14
Benzo[ghi]perylene	0.17	0.715 ^b	--	--	0.1	0.015	0.058
Benzo[k]fluoranthene	0.24	2.995 ^b	--	--	0.12	0.014	0.067
Dibenz[a,h]anthracene	0.06	0.291 ^b	--	--	0.023	0.043 U	0.022
Fluoranthene	0.75	2.28 ^b	--	--	0.25	0.038	0.14
Fluorene	0.19	0.358 ^b	--	--	0.081	0.43 U *	0.11
Indeno[1,2,3-cd]pyrene	0.20	0.72 ^b	--	--	0.098	0.016	0.057
Phenanthrene	0.56	2.123 ^b	--	--	0.1	0.014	0.057
Pyrene	0.49	1.9 ^b	--	--	0.2	0.026	0.11
Polychlorinated Biphenyls							
Aroclor® 1260	0.005	0.054 ^b	--	--	0.1	0.086 U *	0.072 **
Conventional Variables							
Total organic carbon	--	--	--	--	2,680	1,790	2,235

Note: Concentrations are mg/kg dry weight.

-- screening value not available

* value exceeds lower screening value

** value exceeds upper screening value

TOC - total organic carbon

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).^b Adjusted for mean fraction TOC 0.002235.

Table 9. Results of screening evaluation for sediments collected in Areas 6 & 7 of the Southern Swale in 2002 & 2003

Chemical	Screening Values ^a		ASE1 0 to 0.5	ASE2 0 to 0.5	ASE2 ^b 0 to 0.5	ASE3 0 to 0.5	ASE4 0.5 to 1	ASE5 0.5 to 1	ASE6 0.5 to 1	ASE7 0.5 to 1
	Lower	Upper								
Metals										
Antimony	--	--	0.81 U	1 U	0.98 U	4.7 J	4.4 J	1.3 U	1.1 U	1.1 U
Arsenic	6	33	3.8	4.8	4.5	96.9	614	47	5.6	8.5
Beryllium	--	--	1.2	0.5 J	0.62	2.1	3.4 J	1.6 J	1.1 J	0.87 J
Cadmium	0.6	10	0.083 U	0.62 J	0.13 J	2 J	0.92 J	0.11 J	0.1 U	0.1 U
Chromium Total	26	110	23.7	16.3	16.7	92.2	71.1	26.1	21	22.5
Chromium VI (Hexavalent)	--	--	2 U	6.5	13.3	2 U	2 U	2 U	2 U	2 U
Copper	16	110	55.8	45	41.6	382	404 J	72.7 J	14.5 J	14.2 J
Lead	31	250	51.4	48.4	74.4	460	336 J	125 J	10.8 J	12.9 J
Mercury	0.2	2	0.02 J	0.04	0.03 J	0.42	0.39	0.11	0.021 U	0.018 U
Nickel	16	75	24.9	12.2	12.2	81.3	64.9	53.8	12.7	44.7
Silver	1	3.7	0.15 U	0.19 U	0.15 U	0.59 J	0.96 U	0.31 U	0.27 U	0.28 U
Zinc	120	820	209	342	438	11300	5660	2370	104	996
Semi-volatile Organic Compounds										
Benzaldehyde	--	--	0.35 U	4.5 U	0.34 U	1.9 U	0.051 J	0.012 J	0.015 J	0.021 J
bis[2-Ethylhexyl]phthalate	--	--	0.07 J	27	0.75 J	2.2 J	4.8	0.18 J	0.41 U	0.17 J
Carbazole	--	--	0.35 U	0.41 J	0.16 J	0.14 J	0.091 J	0.052 J	0.011 J	0.042 U
Dibenzofuran	--	--	0.35 U	0.15 J	0.33 J	0.091 J	0.04 J	0.03 J	0.41 U	0.42 U
Di-n-octyl phthalate	--	--	0.35 U	73	0.5 J	0.5 J	1.5 U	0.47 U	0.41 U	0.42 U
Polycyclic Aromatic Hydrocarbons										
2-Methylnaphthalene	0.07	0.67	0.014 J	4.5 U	0.02 J	0.03 J	0.07 J	0.049 J	0.41 U	0.42 U
Acenaphthene	0.016	0.5	0.35 U	0.28 J	0.057 J	0.1 J	0.036 J	0.024 J	0.0085 J	0.42 U
Acenaphthylene	0.044	0.64	0.025 J	4.5 U	0.84 U	0.12 J	0.067 J	0.027 J	0.41 U	0.42 U
Anthracene	0.22	39.21	0.034 J	0.8 J	0.19 J	0.31 J	0.1 J	0.071 J	0.025 J	0.42 U
Benz[a]anthracene	0.32	156.9	0.098	1.5	0.8 J	0.35 J	0.34	0.25	0.058	0.016 J
Benzo[a]pyrene	0.37	152.6	0.11	1.2	0.84 J	0.92 J	0.35	0.25	0.046	0.042 U
Benzo[b]fluoranthene	--	--	0.19	1.6	1 J	1.4 J	0.62	0.41	0.063	0.011 J
Benzo[ghi]perylene	0.17	33.92	0.072 J	0.83 J	0.27 J	0.57 J	0.27 J	0.2 J	0.029 J	0.0052 J
Benzo[k]fluoranthene	0.24	142	0.084	0.72	0.8 J	0.45 J	0.25	0.16	0.025 J	0.042 U
Chrysene	0.34	48.75	0.16 J	1.6 J	0.97 J	1.2 J	0.58 J	0.33 J	0.059 J	0.0098 J
Fluoranthene	0.75	108.1	0.19 J	3.4 J	1.5 J	1.5 J	0.89 J	0.57	0.14 J	0.019 J
Fluorene	0.19	16.96	0.35 U	0.32 J	0.051 J	0.087 J	0.05 J	0.026 J	0.41 U	0.42 U
Indeno[1,2,3-cd]pyrene	0.2	33.92	0.083	0.82	0.31 J	0.57 J	0.26	0.2	0.03 J	0.042 U
Naphthalene	0.16	2.1	0.35 U	0.097 J	0.032 J	0.13 J	0.045 J	0.036 J	0.41 U	0.42 U
Phenanthrene	0.56	100.7	0.06 J	2.6 J	0.73 J	1.2 J	0.43 J	0.32 J	0.094 J	0.013 J
Pyrene	0.49	90.09	0.16 J	3 J	1.6 J	1.8 J	0.76 J	0.49	0.11 J	0.015 J

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Table 9. (cont.)

	Screening Values ^a		ASE1	ASE2	ASE2 ^b	ASE3	ASE4	ASE5	ASE6	ASE7
	Lower	Upper								
Chemical	--	--	0 to 0.5	0 to 0.5	0 to 0.5	0 to 0.5	0.5 to 1	0.5 to 1	0.5 to 1	0.5 to 1
Total Petroleum Hydrocarbons	--	--	38.9	1,460	710	758	294	79.3	41.7	28.6
Conventional	--	--	23,100	15,000	15,000	180,000	140,000	58,100	1,350	1,550
Total organic carbon	--	--	23,100	15,000	15,000	180,000	140,000	58,100	1,350	1,550

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Table 9. (cont.)

Chemical	Screening Values ^a		ASE8 0.5 to 1	ASE9 0.5 to 1	ISE1 0 to 0.5	ISE2 0 to 0.5	ISE3 0.5 to 1	ISE4 0.5 to 1	ISE5 0.5 to 1	Mean ^d
	Lower	Upper								
Metals										
Antimony	--	--	61.7	**	9.1	16.8 J *	28.4 J *	5.8 J	18.9 J *	1.5 J
Arsenic	6	33			0.47 J					63.2 J **
Beryllium	--	--								1.3 J
Cadmium	0.6	10								0.49 J
Chromium Total	26	110								63.7 *
Chromium VI (Hexavalent)	--	--			19.2	54.8 *	21.9	84.2 *	358	5.9
Copper	16	110			2 U	2 U	2 U	10.6	37.9	185 J **
Lead	31	250	162 J *		99.8 J *	288 J **	22.8 J *	449 J *	514 J **	200 J *
Mercury	0.2	2			79.2	293	84.7 *	263	800	0.13 J
Nickel	16	75	36.1 *		56	132	21.9 *	136	324	72.3 *
Silver	1	3.7			1370	1690	550	1580	4890	0.22 J
Zinc	120	820	921	**	87.4					2165 **
Semi-volatile Organic Compounds										
Benzaldehyde	--	--								0.65 J
bis[2-Ethylhexyl]phthalate	--	--								4.3 J
Carbazole	--	--								0.10 J
Dibenzofuran	--	--								0.10 J
Di-n-octyl phthalate	--	--								9.5 J
Polycyclic Aromatic Hydrocarbons										
2-Methylnaphthalene	0.07	0.67								0.36 J *
Acenaphthene	0.016	0.5								0.11 J *
Acenaphthylene	0.044	0.64								0.47 J *
Anthracene	0.22	39.21 °								0.22 J
Benz[a]anthracene	0.32	156.9 °								0.49 J *
Benzo[a]pyrene	0.37	152.6 °								0.47 J *
Benzo[b]fluoranthene	--	--								0.66 J
Benzo[ghi]perylene	0.17	33.92 °								0.28 J *
Benzo[k]fluoranthene	0.24	142 °								0.31 J *
Chrysene	0.34	48.75 °								0.61 J *
Fluoranthene	0.75	108.1 °								1.0 J *
Fluorene	0.19	16.96 °								0.14 J
Indeno[1,2,3-cd]pyrene	0.2	33.92 °								0.29 J *
Naphthalene	0.16	2.1								0.12 J
Phenanthrene	0.56	100.7 °								0.68 J *
Pyrene	0.49	90.09 °								0.99 J *

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Table 9. (cont.)

Chemical	Screening Values ^a		ASE8	ASE9	ISE1	ISE2	ISE3	ISE4	ISE5	Mean ^d
	Lower	Upper								
Total Petroleum Hydrocarbons	--	--								426
Conventional										
Total organic carbon	--	--			47,500	297,000	6,200	423,000	170,000	105,985

Note: Concentrations are mg/kg dry weight.

- screening value not available
- * value exceeds lower screening value
- ** value exceeds upper screening value
- J - estimated

TOC - total organic carbon

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

Screening values are from NJDEP (1998b).

^a Field duplicate.

^c Adjusted for mean fraction TOC 0.105985

^d Mean values for nondetects are the average of the detection limits.

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Table 10. Results of screening evaluation for sediments collected in Area 8 of the Southern Swale in 2002/2003

	Screening Values ^a		JSE2	JSE3	WSE6	WSE7	Mean ^c
	Lower	Upper					
Metals and Cyanide							
Arsenic	6.0	33	6.3	24.5	15.1	18.2	16.0
Barium	--	--	156	184	509	251	275
Chromium	26	110	64.2	72.4	125	67	82.2
Chromium, hexavalent	--	--	8.2	2 U	12.5	2 U	5.7
Copper	16	110	76.1	100	313	127	154
Lead	31	250	65.8	95	186	116	116
Nickel	16	75	77	104	119	105	101
Zinc	120	820	840	1,150	1,290	1,160	1,110
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	0.016	0.5	0.06	0.12	0.51	0.022	0.11
Acenaphthylene	0.044	0.64	0.046	0.019	0.51	0.59	0.15
Anthracene	0.22	19.185	0.2	0.24	0.51	0.068	0.19
Benzo[a]anthracene	0.32	76.738	0.9	0.85	0.023	0.2	0.49
Benzo[a]pyrene	0.37	74.664	0.9	0.77	0.015	0.16	0.46
Benzo[b]fluoranthene	--	--	1.4	1.1	0.019	0.24	0.69
Benzo[k]fluoranthene	0.17	16.592	0.45	0.49	0.0087	0.093	0.26
Benzo[k]perylene	0.24	69.479	0.54	0.54	0.011	0.11	0.31
Dibenz[a,h]anthracene	0.06	6.7405	0.12	0.13	0.051	0.024	0.075
Fluoranthene	0.75	52.887	1.8	1.8	0.028	0.54	1.0
Fluorene	0.19	8.296	0.053	0.09	0.51	0.025	0.11
Indeno[1,2,3-cd]pyrene	0.20	16.6	0.51	0.51	0.051	0.097	0.29
Naphthalene	0.16	2.1	0.021	0.077	0.51	0.59	0.16
Phenanthrene	0.56	49.258	0.71	1	0.17	0.28	0.50
Pyrene	0.49	44.073	1.5	1.4	0.023	0.38	0.83
Semivolatile Organic Compounds							
1,2-Benzophenanthrene	--	--	1	0.99	0.016	0.25	0.56
Polychlorinated Biphenyls							
Aroclor [®] 1248	0.03	7.7775	0.094	0.26	0.1	0.12	0.10
Aroclor [®] 1254	0.06	1.7629	0.094	0.2	0.1	0.12	0.09
Aroclor [®] 1262	--	--	0.094	0.19	0.18	0.12	0.12
Conventional Variables							
Total organic carbon	--	--	32,400	52,100	62,300	60,600	51,850

Note: Concentrations are mg/kg dry weight.

-- screening value not available

* value exceeds lower screening value

** value exceeds upper screening value

TOC - total organic carbon

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).^b Adjusted for mean fraction TOC 0.05185.^c Mean values for nondetects are the average of the detection limits.

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^b Mean values for nondetects are the average of the detection limits.

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Table 12. Results of screening evaluation for underlying sediments collected in Lower Gold Run in 2004 (1–1.5 ft)

Chemical	Screening Values ^a		CE-3	GR-06	Mean ^c
	Lower	Upper			
Metals					
Aluminum	--	--	5,710 <i>J</i>		5,710 <i>J</i>
Arsenic	6.0	33	8.5 <i>J</i> *		8.5 <i>J</i> *
Barium	--	--	197 <i>J</i>		197 <i>J</i>
Beryllium	--	--	0.79 <i>J</i>		0.79 <i>J</i>
Cadmium	0.6	10	1.9 <i>J</i> *		1.9 <i>J</i> *
Chromium	26	110	104 <i>J</i> *		104 <i>J</i> *
Cobalt	--	--	8.7 <i>J</i>		8.7 <i>J</i>
Copper	16	110	162 **		162 **
Iron	--	--	13,000 <i>J</i>		13,000 <i>J</i>
Lead	31	250	114 <i>J</i> *		114 <i>J</i> *
Manganese	--	--	321 <i>J</i>		321 <i>J</i>
Mercury	0.2	2	0.77 *		0.77 *
Nickel	16	75	139 <i>J</i> **		139 <i>J</i> **
Silver	1.0	3.7	0.7 <i>J</i>		0.70 <i>J</i>
Vanadium	--	--	26.9		27
Zinc	120	820	575 <i>J</i> *		575 <i>J</i> *
Volatile Organic Compounds					
<i>cis</i> -1,2-Dichloroethene	--	--	0.32 <i>J</i>	0.87 <i>U</i>	0.38 <i>J</i>
Trichloroethene	--	--	0.26 <i>J</i>	0.17 <i>U</i>	0.17 <i>J</i>
Semivolatile Organic Compounds					
Biphenyl	--	--	0.84 <i>J</i>		0.84 <i>J</i>
bis[2-Ethylhexyl]phthalate	--	--	2 <i>J</i>		2.0 <i>J</i>
Carbazole	--	--	19		19
Dibenzofuran	--	--	11		11
N-Nitrosodiphenylamine	--	--	0.26 <i>J</i>		0.26 <i>J</i>
Polycyclic Aromatic Hydrocarbons					
2-Methylnaphthalene	0.07	0.67	1.7 <i>J</i> **		1.7 <i>J</i> **
Acenaphthene	0.016	0.5	18 **		18 **
Acenaphthylene	0.044	0.64	0.29 <i>J</i> *		0.29 <i>J</i> *
Anthracene	0.22	3.7 ^b	34 **		34 **
Benz[a]anthracene	0.32	14.8 ^b	49 **		49 **
Benzo[a]pyrene	0.37	14.4 ^b	44 **		44 **
Benzo[b]fluoranthene	--	--	32		32
Benzo[ghi]perylene	0.17	3.2 ^b	20 **		20 **
Benzo[k]fluoranthene	0.24	13.4 ^b	59 **		59 **
Chrysene	0.34	4.6 ^b	53 **		53 **
Dibenz[a,h]anthracene	0.06	1.3 ^b	6.3 **		6.3 **
Fluoranthene	0.75	10.2 ^b	120 **		120 **
Fluorene	0.19	1.6 ^b	19 **		19 **
Indeno[1,2,3-cd]pyrene	0.20	3.20 ^b	21 **		21 **
Naphthalene	0.16	2.1	5.4 <i>J</i> **		5.4 <i>J</i> **
Phenanthrene	0.56	9.5 ^b	130 **		130 **
Pyrene	0.49	8.5 ^b	120 **		120 **
Total Petroleum Hydrocarbons	--	--	1,400		1,400

Note: Concentrations are mg/kg dry weight.

- - screening value not available
- * - value exceeds lower screening value
- ** - value exceeds upper screening value
- J - estimated
- TOC - total organic carbon

Table 12. (cont.)

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U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).

^b Adjusted for assumed 0.01 fraction TOC.

^c Mean values for nondetects are the average of the detection limits.

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Table 13. Results of screening evaluation for sediments collected in Areas 6 & 7 of the Southern Swale in 2006

Chemical	Screening Values ^a		GR-08	GR-09	GR-10	Mean ^b
	Lower	Upper	0.5 to 1	0.5 to 1	0.5 to 1	
Volatile Organic Compounds		--				
Trichloroethene	1.6	--	1.2	0.14 <i>U</i>	0.11 <i>J</i>	0.46 <i>J</i>

Note: Concentrations are mg/kg dry weight.

-- - screening value not available

* - value exceeds lower screening value

** - value exceeds upper screening value

J - estimated*U* - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit^a Screening values are from NJDEP (1998b).^b Mean values for nondetects are the average of the detection limits.

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Table 14. Results of screening evaluation for sediments collected in Area 8 of the Southern Swale in 2006

Chemical	Screening Values ^a		GR-07	GR-07	Mean ^b
	Lower	Upper	0.25 to 0.75	0.75 to 1.25	
Volatile Organic Compounds					
Toluene	2.5	--	0.40 <i>J</i>	0.77 <i>U</i>	0.39 <i>J</i>
Trichloroethene	1.6	--	0.11 <i>J</i>	0.15 <i>U</i>	0.09 <i>J</i>

Note: Concentrations are mg/kg dry weight.

- - screening value not available
- * - value exceeds lower screening value
- ** - value exceeds upper screening value
- J* - estimated
- U* - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from NJDEP (1998b).^b Mean values for nondetects are the average of the detection limits

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Table 15. Results of screening evaluations for soils collected in Areas 6 and 7 in 1994 and 1998

	Screening Values ^a		B6-9	B6-10	B6-11	B6-12	B7-1
	Lower	Upper					
Metals							
Antimony	0.27 M	78 I	0.26 U	0.33 U	0.33 U	0.28 U	0.54 U
Arsenic	18 P	46 M	10 U	28 *	39 *	18	22 U
Barium	330 I	2,000 M	10 U	72	140	75	96
Beryllium	21 M	40 I	0.5 U	0.66 U	0.72 U	0.55 U	1.1 U
Cadmium	0.36 M	140 I	0.5 U	0.91 *	6 *	2.4 *	1.2 *
Chromium	0.4 E	1 Q	2.5 U	23 **	120 **	36 **	37 **
Copper	28 A	80 I	2.5 U	44 *	210 **	53 *	130 **
Lead	11 A	1,700 I	10 U	83 *	600 *	100 *	41 *
Mercury	0.1 E	0.3 Q	0.1 U	0.13 U	0.13 U	0.11 U	0.11 U
Nickel	30 Q	200 E	2.5 U	25	110 *	52 *	33 *
Zinc	50 Q	200 E	2.5 U	340 **	1900 **	640 **	130
Total cyanide	--	--					
Semi-volatile Organic Compounds							
bis[2-ethylhexyl]phthalate	--	--	0.38 U	8.8 U	38 U	1 JB	0.37 U
Butylbenzylphthalate	--	--	0.38 U	3.8 U	38 U	7.3 U	0.37 U
Carbazole	--	--					
Dibenzofuran	--	--					
Di-n-butylphthalate	200 Q	--	0.099 J	8.8 U	38 U	7.3 U	0.37 U
Di-n-octyl phthalate	--	--	0.38 U	8.8 U	38 U	7.3 U	0.066 J
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	--	--					
Acenaphthene	20 Q	--	0.38 U	8.8 U	38 U	7.3 U	0.37 U
Anthracene	--	--	0.048 J	8.8 U	38 U	7.3 U	0.053 J
Benz[a]anthracene	--	--	0.13 J	8.8 U	13 J	7.3 U	0.13 J
Benzo[a]pyrene	--	--	0.082 J	8.8 U	12 J	7.3 U	0.37 U
Benzo[b]fluoranthene	--	--	0.09 J	8.8 U	16 J	0.95 J	0.082 J
Benzo[ghi]perylene	--	--	0.067 J	8.8 U	38 U	7.3 U	0.081 J
Benzo[k]fluoranthene	--	--	0.088 J	8.8 U	20 J	7.3 U	0.12 J
Chrysene	--	--	0.18 J	8.8 U	19 J	7.3 U	0.13 J
Dibenz[a,h]anthracene	--	--	0.38 U	8.8 U	38 U	7.3 U	0.043 J
Fluoranthene	--	--	0.25 J	8.8 U	29 J	0.86 J	0.25 J
Fluorene	30 E	--	0.045 J	8.8 U	38 U	7.3 U	0.37 U
Indeno[1,2,3-cd]pyrene	--	--	0.044 J	8.8 U	38 U	7.3 U	0.076 J
Phenanthrene	--	--	0.28 J	8.8 U	9.3 J	7.3 U	0.17 J
Pyrene	--	--	0.3 J	8.8 U	28 J	1 J	0.2 J

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Table 15. (cont.)

	Screening Values ^a		B6-1	B6-9	B6-10	B6-11	B6-12	B7-1
	Lower	Upper						
Volatile Organic Compounds								
1,2-Dichloroethene (total)	--	--						
Acetone	--	--						
Ethylbenzene	--	--						
Methylene chloride	--	--						
Toluene	200 Q	--						
Trichloroethene	--	--						
Xylene (total)	--	--						
Total Petroleum Hydrocarbon			10 U	3,500	280	5,000	1,300	11
Petroleum hydrocarbons	--	--						
Conventional Variables								
Total organic carbon	--	--						

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Table 15. (cont.)

	Screening Values ^a		B7-9	B7-10	B7-11	B7-12	SB-6-SO-1	SB-6-SO-2
	Lower	Upper						
Metals								
Antimony	0.27 M	78 l	0.48 *	2.1 *	2.1 *	0.59 *		
Arsenic	18 P	46 M	35 *	440 **	440 **	310 **		
Barium	330 l	2,000 M	250 *	970 *	970 *	460 *		
Beryllium	21 M	40 l	0.65 U	0.83	0.83	0.87		
Cadmium	0.36 M	140 l	15 *	34 *	34 *	7.8 *		
Chromium	0.4 E	1 Q	140 **	350 **	350 **	67 **		
Copper	28 A	80 l	730 **	1100 **	1100 **	380 **		
Lead	11 A	1,700 l	240 *	640 *	640 *	640 *		
Mercury	0.1 E	0.3 Q	0.15 *	0.14 *	0.14 *	0.12 U		
Nickel	30 Q	200 E	320 **	410 **	410 **	750 **		
Zinc	50 Q	200 E	1800 **	4900 **	4900 **	4200 **		
Total cyanide	--	--						
Semi-volatile Organic Compounds								
bis[2-ethylhexyl]phthalate	--	--	3.1 JB	1.6 B	0.18 JB	0.45 JB		
Butylbenzylphthalate	--	--	8.7 U	0.47 U	0.051 J	4.1 U		
Carbazole	--	--						
Dibenzofuran	--	--						
Di-n-butylphthalate	200 Q	--	8.7 U	1.6	0.73	0.86 J		
Di-n-octyl phthalate	--	--	8.7 U	0.47 U	0.37 U	4.1 U		
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	--	--					0.054 J	0.4 U
Acenaphthene	20 Q	--	8.7 U	0.066 J	0.37 J	4.1 U	0.4 U	0.4 U
Anthracene	--	--	8.7 U	0.23 J	0.05 J	4.1 U	0.4 U	0.4 U
Benz[a]anthracene	--	--	3.4 J	1	0.19 J	4.1 U	0.4 U	0.039 J
Benz[a]pyrene	--	--	3 J	0.58	0.26 J	4.1 U	0.4 U	0.16 J
Benz[b]fluoranthene	--	--	4.9 J	0.81	0.3 J	4.1 U	0.062 J	0.059 J
Benz[ghi]perylene	--	--	8.7 U	0.33	0.16 J	4.1 U	0.15 J	0.11 J
Benz[k]fluoranthene	--	--	4.5 J	0.71	0.3 J	4.1 U	0.4 U	0.021 J
Chrysene	--	--	4.7 J	1.2	0.26 J	4.1 U	0.058 J	0.065 J
Dibenz[a,h]anthracene	--	--	8.7 U	0.11	0.058 J	4.1 U	0.064 J	0.4 U
Fluoranthene	--	--	8 J	1.2	1.2	4.1 U	0.065 J	0.4 U
Fluorene	30 E	--	8.7 U	0.092 J	0.37 J	4.1 U	0.4 U	0.4 U
Indeno[1,2,3-cd]pyrene	--	--	8.7 U	0.32	0.17 J	4.1 U	0.13 J	0.079 J
Phenanthrene	--	--	2.2 J	0.75	0.18 J	4.1 U	0.055 J	0.097 J
Pyrene	--	--	7.3 J	1.7	0.25 J	4.1 U	0.07 J	0.12 J

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Table 15. (cont.)

	Screening Values ^a		B7-9	B7-10	B7-11	B7-12	SB-6-SO-1	SB-6-SO-2
	Lower	Upper						
Volatile Organic Compounds								
1,2-Dichloroethene (total)	--	--						
Acetone	--	--						
Ethylbenzene	--	--						
Methylene chloride	--	--						
Toluene	200 Q	--						
Trichloroethene	--	--						
Xylene (total)	--	--						
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--	2,160	1,700	1,700	450	900	1,500
Conventional Variables								
Total organic carbon	--	--						

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Table 15. (cont.)

	Screening Values ^a		SB-6-SO-3 ^b	SB-6-SO-3	SB-6-SO-4	SB-7-SO-1	SB-7-SO-2	SB-7-SO-3 ^b
	Lower	Upper						
Metals								
Antimony	0.27 M	78 I						0.5 U
Arsenic	18 P	46 M						9.7
Barium	330 I	2,000 M						
Beryllium	21 M	40 I						0.5 U
Cadmium	0.36 M	140 I						1 *
Chromium	0.4 E	1 Q						150 **
Copper	28 A	80 I						410 **
Lead	11 A	1,700 I	33 *	21 *	62 *			65 *
Mercury	0.1 E	0.3 Q						0.1 U
Nickel	30 Q	200 E						180 *
Zinc	50 Q	200 E						220 *
Total cyanide	--	--						2 U
Semivolatile Organic Compounds								
bis[2-ethylhexyl]phthalate	--	--						0.31 J
Butylbenzylphthalate	--	--						0.13 J
Carbazole	--	--						0.069 J
Dibenzofuran	--	--						0.36 U
Di-n-butylphthalate	200 Q	--						0.29 J
Di-n-octyl phthalate	--	--						0.36 U
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	--	--						0.36 U
Acenaphthene	20 Q	--						0.072 J
Anthracene	--	--						0.1 J
Benz[a]anthracene	--	--						0.35 J
Benzo[a]pyrene	--	--						0.27 J
Benzo[b]fluoranthene	--	--						0.48
Benzo[ghi]perylene	--	--						0.14 J
Benzo[k]fluoranthene	--	--						0.36 U
Chrysene	--	--						0.34 J
Dibenz[a,h]anthracene	--	--						0.059 J
Fluoranthene	--	--						0.56
Fluorene	30 E	--						0.065 J
Indeno[1,2,3-cd]pyrene	--	--						0.13 J
Phenanthrene	--	--						0.47
Pyrene	--	--						0.45

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Table 15. (cont.)

	Screening Values ^a		SB-6-SO-3 ^b	SB-6-SO-3	SB-6-SO-4	SB-7-SO-1	SB-7-SO-2	SB-7-SO-3 ^b
	Lower	Upper						
Volatile Organic Compounds								
1,2-Dichloroethene (total)	--	--						0.006 U
Acetone	--	--						0.003 J
Ethylbenzene	--	--	0.006 U	0.005 J	0.75 U			0.006 U
Methylene chloride	--	--						0.005 J
Toluene	200 Q	--	0.006 U	0.021 J	0.75 U			0.006 U
Trichloroethene	--	--						0.006 U
Xylene (total)	--	--	0.006	0.023 B	0.75 U			0.002 J
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--				110 J	1,000 J	1,000
Conventional Variables								
Total organic carbon	--	--						10,000

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Table 15. (cont.)

	Screening Values ^a		SB-7-SO-3	SB-7-SO-4	SB-7-SO-5	SB-7-SO-6	SB-7-SO-7
	Lower	Upper					
Metals							
Antimony	0.27 M	78 I	0.5 UJ	3.2 UJ *	3 UJ *	0.5 UJ	9.2 J *
Arsenic	18 P	46 M	12 J	1.6 UJ	20 *	4.2 J	6.9 U
Barium	330 I	2,000 M					
Beryllium	21 M	40 I	0.5 U	0.5 U	0.52	0.5 U	0.5 U
Cadmium	0.36 M	140 I	1.3 *	1.3 *	1.3 *	1.4 *	1 U *
Chromium	0.4 E	1 Q	180 **	2000 **	280 **	180 **	8100 **
Copper	28 A	80 I	390 **	4600 **	390 **	670 **	130 **
Lead	11 A	1,700 I	91 *	100 *	360 *	410 *	90 *
Mercury	0.1 E	0.3 Q	0.1 U	0.1 U	0.18 *	0.11 U	0.12 U
Nickel	30 Q	200 E	200 *	3000 **	1200 **	920 **	62 *
Zinc	50 Q	200 E	240 **	300 **	1600 **	680 **	210 **
Total cyanide	--	--	2 U	0.2 U	2 U	2 U	4.1
Semivolatile Organic Compounds							
bis[2-ethylhexyl]phthalate	--	--	0.4 U*	0.36 U*	0.25 J	0.4 U*	0.42
Butylbenzylphthalate	--	--	0.085 J	0.36 U	0.4 U	0.4 U	0.4 U
Carbazole	--	--	0.061 J	0.36 U	0.079 J	0.4 U	0.4 U
Dibenzofuran	--	--	0.4 U	0.36 U	0.053 J	0.4 U	0.4 U
Di-n-butylphthalate	200 Q	--	0.098 J	0.36 U	0.4 U*	0.4 U*	0.4 U*
Di-n-octyl phthalate	--	--	0.4 U	0.36 U	0.054 J	0.4 U	0.4 U
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	--	--	0.4 U	0.36 U	0.4 U	0.4 U	0.4 U
Acenaphthene	20 Q	--	0.061 J	0.36 U	0.091 J	0.4 U	0.4 U
Anthracene	--	--	0.087 J	0.36 U	0.17 J	0.4 U	0.4 U
Benz[a]anthracene	--	--	0.31 J	0.36 U	0.41	0.1 J	0.4 U
Benzo[a]pyrene	--	--	0.25 J	0.36 U	0.36 J	0.2 J	0.4 U
Benzo[b]fluoranthene	--	--	0.4	0.36 U	0.71	0.15 J	0.4 U
Benzo[ghi]perylene	--	--	0.15 J	0.36 U	0.2 J	0.11 J	0.4 U
Benzo[k]fluoranthene	--	--	0.4 U	0.36 U	0.4 U	0.4 U	0.4 U
Chrysene	--	--	0.26 J	0.36 U	0.4	0.14 J	0.4 U
Dibenz[a,h]anthracene	--	--	0.06 J	0.36 U	0.072 J	0.4 U	0.4 U
Fluoranthene	--	--	0.5	0.36 U	0.91	0.13 J	0.4 U
Fluorene	30 E	--	0.055 J	0.36 U	0.082 J	0.4 U	0.4 U
Indeno[1,2,3-cd]pyrene	--	--	0.14 J	0.36 U	0.22 J	0.063 J	0.4 U
Phenanthrene	--	--	0.4	0.047 J	0.76	0.087 J	0.4 U
Pyrene	--	--	0.36 J	0.36 U	0.72	0.13 J	0.4 U

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Table 15. (cont.)

	Screening Values ^a		SB-7-SO-3	SB-7-SO-4	SB-7-SO-5	SB-7-SO-6	SB-7-SO-7
	Lower	Upper					
Volatile Organic Compounds							
1,2-Dichloroethene (total)	--	--	0.003 J	0.006 U	0.006 U	0.006 U	0.75 U
Acetone	--	--	0.032 U*	0.13	0.038 B	0.018 U	28
Ethylbenzene	--	--	0.006 U	0.006 U	0.006 U	0.006 U	0.75 U
Methylene chloride	--	--	0.012 U*	0.003 J	0.012 U	0.012 U*	1.5 U
Toluene	200 Q	--	0.006 U	0.006 U	0.006 U	0.006 U	0.75 U
Trichloroethene	--	--	0.007	0.006 U	0.006 U	0.003 J	0.75 U
Xylene (total)	--	--	0.013	0.006 U	0.006 U	0.001 J	0.75 U
Total Petroleum Hydrocarbon							
Petroleum hydrocarbons	--	--	1,200 J	250 J	1,000	470 J	280
Conventional Variables							
Total organic carbon	--	--	23,000	1,500	5,000	23,000	2700 U

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efroymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efroymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efroymson et al. (1997a,b).

^b Field duplicate.

Table 16. Results of screening evaluations for soils collected in Area 8 in 1994 and 1998

	Screening Values ^a		B8-4	B8-5	B8-6	B8-7	B8-8
	Lower	Upper					
Metals							
Arsenic	18 P	46 M	11 U	30 *	11 U	11 U	12 U
Barium	330 I	2,000 M	340 *	490 *	110	430 *	1,800 *
Beryllium	21 M	40 I	0.63	0.55 U	0.54 U	0.54 U	0.59
Cadmium	0.36 M	140 I	0.56 U	1.6 *	0.54 U	0.77 *	2.4 *
Chromium (total)	0.4 E	1 Q	0.72 *	140 **	32 **	43 **	120 **
Copper	28 A	80 I	110 **	240 **	36 *	110 **	350 **
Lead	11 A	1,700 I	33 *	120 *	11 U	140 *	85 *
Mercury	0.1 E	0.3 Q	0.11 U	0.13 *	0.11 U	0.11 U	0.45 **
Nickel	30 Q	200 E	74 *	180 *	33 *	63 *	100 *
Zinc	50 Q	200 E	370 **	1,700 **	190 *	990 **	1,900 **
Cyanide	--	--	0.25 U	0.65	0.47	0.25 U	1.1
Semivolatile Organic Compounds							
bis[2-Ethylhexyl]phthalate	--	--	0.12 J	1.7 B	0.064 JB	0.12 JB	2.1 B
Butyl benzylphthalate	--	--	0.14 J	0.54	0.046 J	0.1 J	0.39 U
Di-n-butylphthalate	200 Q	--	0.37 U	0.062 JB	0.36 U	0.14 JB	0.049 JB
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	20 Q	--	0.37 U	0.094 J	0.36 U	0.36 U	0.39 U
Anthracene	--	--	0.37 U	0.19 J	0.36 U	0.36 U	0.39 U
Benz[a]anthracene	--	--	0.23 J	0.65	0.1 J	0.074 J	0.071 J
Benzo[a]pyrene	--	--	0.26 J	0.64	0.11 J	0.085 J	0.079 J
Benzo[b]fluoranthene	--	--	0.31 J	0.73	0.14 J	0.099 J	0.081 J
Benzo[ghi]perylene	--	--	0.19 J	0.17 J	0.091 J	0.07 J	0.067 J
Benzo[k]fluoranthene	--	--	0.26 J	0.76	0.12 J	0.11 J	0.094 J
Chrysene	--	--	0.3 J	0.64	0.12 J	0.11 J	0.075 J
Dibenz[a,h]anthracene	--	--	0.11 J	0.064 J	0.36 U	0.36 U	0.39 U
Fluoranthene	--	--	0.38	1.2	0.18 J	0.19 J	0.11 J
Fluorene	30 E	--	0.37 U	0.078 J	0.36 U	0.36 U	0.39 U
Indeno[1,2,3-cd]pyrene	--	--	0.19 J	0.17 J	0.075 J	0.062 J	0.055 J
Naphthalene	--	--	0.37 U	0.37 U	0.36 U	0.36 U	0.053 J
Phenanthrene	--	--	0.14 J	0.73	0.063 J	0.13 J	120 J
Pyrene	--	--	0.3 J	1.2	0.16 J	0.15 J	0.1 J

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Table 16. (cont.)

	Screening Values ^a		B8-4	B8-5	B8-6	B8-7	B8-8
	Lower	Upper					
Polychlorinated Biphenyls							
Aroclor® 1260	--	--					
Total PCBs	40 Q	--					

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Table 16. (cont.)

	Screening Values ^a		B8-10	B8-11	B8-12	B8-13
	Lower	Upper				
Metals						
Arsenic	18 P	46 M				
Barium	330 I	2,000 M				
Beryllium	21 M	40 I				
Cadmium	0.36 M	140 I				
Chromium (total)	0.4 E	1 Q				
Copper	28 A	80 I				
Lead	11 A	1,700 I				
Mercury	0.1 E	0.3 Q				
Nickel	30 Q	200 E				
Zinc	50 Q	200 E				
Cyanide	--	--				
Semivolatile Organic Compounds						
bis[2-Ethylhexyl]phthalate	--	--				
Butyl benzylphthalate	--	--				
Di-n-butylphthalate	200 Q	--				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	20 Q	--				
Anthracene	--	--				
Benz[a]anthracene	--	--				
Benzo[a]pyrene	--	--				
Benzo[b]fluoranthene	--	--				
Benzo[ghi]perylene	--	--				
Benzo[k]fluoranthene	--	--				
Chrysene	--	--				
Dibenzo[a,h]anthracene	--	--				
Fluoranthene	--	--				
Fluorene	30 E	--				
Indeno[1,2,3-cd]pyrene	--	--				
Naphthalene	--	--				
Phenanthrene	--	--				
Pyrene	--	--				

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Table 16. (cont.)

	Screening Values ^a		B8-10	B8-11	B8-12	B8-13
	Lower	Upper				
Polychlorinated Biphenyls						
Aroclor® 1260	--	--	3.1	0.2	0.33	0.29
Total PCBs	40 Q	--	3.1	0.2	0.33	0.29

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efroymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efroymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efroymson et al. (1997a,b).

^b Field duplicate.

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Table 17. Results of screening evaluations for soils collected in Area 10 in 1994 and 1998

	Screening Values ^a		B10-5	B10-8	B8-2	B8-3	B9-15	B9-19
	Lower	Upper						
Metals								
Antimony	0.27 M	78 I	0.28 U	0.02 U	0.28 U	0.27 U	0.26 U	0.27 U
Arsenic	18 P	46 M	11 U	12 U	11 U	11 U	69 **	16
Barium	330 I	2,000 M	160	80	480 *	160	620 *	1,700 *
Beryllium	21 M	40 I	0.57 U	0.59 U	0.85	0.54 U	0.58	0.55 U
Cadmium	0.36 M	140 I	0.93 *	0.59 U	0.94 *	0.54 U	1.8 *	0.75 *
Chromium (total)	0.4 E	1 Q	90 **	20 **	86 **	31 **	630 **	700 **
Copper	28 A	80 I	110 **	22	150 **	51 *	510 **	920 **
Lead	11 A	1,700 I	95 *	19 *	85 *	13 *	240 *	250 *
Mercury	0.1 E	0.3 Q	0.26 *	0.12 U	0.13 *	0.11 U	0.23 *	0.18 *
Nickel	30 Q	200 E	84 *	22	180 *	52 *	1400 **	1800 **
Zinc	50 Q	200 E	400 **	59 *	780 **	220 **	2,400 **	2,400 **
Total cyanide	--	--	--	--	6.2	0.25 U	--	--
Semivolatile Organic Compounds								
1,4-Dichlorobenzene	--	--	0.38 U	3.6 U	0.043 J	0.36 U	--	0.37 U
bis[2-Ethylhexyl]phthalate	--	--	0.36 J	3.8 U	1.1	0.097 J	--	0.37 U
Benzyl butyl phthalate	--	--	0.15 J	3.8 U	3.1	0.42	--	0.12 J
Carbazole	--	--	--	--	--	--	--	0.4
Dibenzofuran	--	--	--	--	--	--	--	0.27 J
di-n-Butylphthalate	200 Q	--	0.38 U	3.8 U	0.12 J	0.36 U	--	0.35 J
di-n-Octylphthalate	--	--	0.38 U	3.8 U	0.37 U	0.36 U	--	0.1 J
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	--	--	--	--	--	--	--	0.33 J
Acenaphthene	20 Q	--	0.38 U	3.8 U	0.1 J	0.36 U	--	0.38
Acenaphthylene	--	--	0.098 J	3.8 U	0.37 U	0.36 U	--	0.042 J
Anthracene	--	--	0.13 J	3.8 U	0.14 J	0.36 U	--	0.56
Benz[a]anthracene	--	--	0.65	3.8 U	0.31 J	0.36 U	--	0.37 U
Benzo[a]pyrene	--	--	0.85	3.8 U	0.094 J	0.046 J	--	0.09 J
Benzo[b]fluoranthene	--	--	1.2	3.8 U	0.13 J	0.046 J	--	0.35 J
Benzo[ghi]perylene	--	--	0.26 J	3.8 U	0.37 U	0.044 J	--	0.1 J
Benzo[k]fluoranthene	--	--	1	3.8 U	0.13 J	0.36 U	--	0.33 J
Chrysene	--	--	0.78	3.8 U	0.31 J	0.36 U	--	0.38
Dibenz[a,h]anthracene	--	--	0.096 J	3.8 U	0.37 U	0.36 U	--	0.042 J
Fluoranthene	--	--	1.4	3.8 U	0.58	0.049 J	--	0.56
Fluorene	30 E	--	0.045 J	3.8 U	0.17 J	0.36 U	--	0.37 U
Indeno[1,2,3-cd]pyrene	--	--	0.25 J	3.8 U	0.37 U	0.042 J	--	0.09 J
Naphthalene	--	--	0.38 U	3.8 U	0.2 J	0.36 U	--	0.37 U
Phenanthrene	--	--	0.61	3.8 U	0.58	0.36 U	--	0.35 J
Pyrene	--	--	1.3	3.8 U	0.75	0.046 J	--	0.74

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Table 17. (cont.)

	Screening Values ^a		B10-5	B10-8	B8-2	B8-3	B9-15	B9-19
	Lower	Upper						
Volatile Organic Compounds								
Acetone	--	--						
Dichloromethane	--	--		0.042 <i>B</i>				
Trichloroethylene	--	--		0.006 <i>U</i>				
Xylene (total)	--	--						
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--						
Conventional Variables								
Total organic carbon	--	--						

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Table 17. (cont.)

	Screening Values ^a		SB-10-SO-1 ^b	SB-10-SO-2	SB-10-SO-3	SB-10-SO-4
	Lower	Upper				
Metals						
Antimony	0.27 M	78 l	0.5 U	0.8 UJ *	0.56 J *	0.81 UJ *
Arsenic	18 P	46 M	20 J *	5.5 J	11 J	5
Barium	330 l	2,000 M				
Beryllium	21 M	40 l	0.55	1.2	1.1	0.5 U
Cadmium	0.36 M	140 l	1.2 *	1	1.3 *	1 U *
Chromium (total)	0.4 E	1 Q	33 J **	270 **	400 **	24 **
Copper	28 A	80 l	34 *	220 **	360 **	17
Lead	11 A	1,700 l	490 *	170 *	150 *	53 *
Mercury	0.1 E	0.3 Q	0.1 U	0.1 UR	0.1 UJ	0.15 U
Nickel	30 Q	200 E	75 J *	460 **	750 **	18
Zinc	50 Q	200 E	4,800 **	2,100 **	2,100 **	55 *
Total cyanide	--	--	24	2 U	2 U	2 U
Semivolatile Organic Compounds						
1,4-Dichlorobenzene	--	--	0.4 U	0.43 UR	0.5 U	0.56 U
bis[2-Ethylhexyl]phthalate	--	--	0.09 J	0.43 UR	0.35 J	0.092 J
Benzyl butyl phthalate	--	--	0.4 U	0.43 UR	0.5 U	0.56 U
Carbazole	--	--	0.47	0.43 UR	0.5 U	0.56 U
Dibenzofuran	--	--	0.23 J	0.43 UR	0.5 U	0.56 U
di-n-Butylphthalate	200 Q	--	0.2 J	0.43 UR	0.37 J	0.56 U*
di-n-Octylphthalate	--	--	0.4 U	0.43 UR	0.5 U	0.56 U
Polycyclic Aromatic Hydrocarbons						
2-Methylnaphthalene	--	--	0.092 J	0.43 UR	0.5 U	0.56 U
Acenaphthene	20 Q	--	0.48	0.43 UR	0.096 J	0.56 U
Acenaphthylene	--	--	0.4 U	0.43 UR	0.5 U	0.56 U
Anthracene	--	--	0.72	0.43 UR	0.14 J	0.56 U
Benz[a]anthracene	--	--	1.3	0.43 UR	0.53	0.13 J
Benz[a]pyrene	--	--	1	0.43 UR	0.41 J	0.13 J
Benz[b]fluoranthene	--	--	1.3	0.43 UR	0.77	0.17 J
Benz[ghi]perylene	--	--	0.68	0.43 UR	0.31 J	0.095 J
Benz[k]fluoranthene	--	--	0.47	0.43 UR	0.5 U	0.066 J
Chrysene	--	--	1.3	0.43 UR	0.45 J	0.16 J
Dibenz[a,h]anthracene	--	--	0.19 J	0.43 UR	0.13 J	0.56 U
Fluoranthene	--	--	2.9	0.43 UR	0.86	0.27 J
Fluorene	30 E	--	0.36 J	0.43 UR	0.5 U	0.56 U
Indeno[1,2,3-cd]pyrene	--	--	0.78	0.43 UR	0.32 J	0.11 J
Naphthalene	--	--	0.25 J	0.43 UR	0.5 U	0.56 U
Phenanthrene	--	--	2.8	0.43 UR	0.59	0.17 J
Pyrene	--	--	2	0.43 UR	0.74	0.27 J

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Table 17. (cont.)

	Screening Values ^a		SB-10-SO-1 ^b	SB-10-SO-2	SB-10-SO-3	SB-10-SO-4
	Lower	Upper				
Volatile Organic Compounds						
Acetone	--	--	0.003 J	0.012 U*	0.015 U*	0.017 U*
Dichloromethane	--	--	0.006 J	0.012 U*	0.015 U*	0.017 U
Trichloroethylene	--	--	0.006 U	0.001 J	0.008 U	0.009 U
Xylene (total)	--	--	0.006 U	0.007 U	0.008 U	0.009 UJ
Total Petroleum Hydrocarbon						
Petroleum hydrocarbons	--	--	63	26	73	25 U
Conventional Variables						
Total organic carbon	--	--	37,000	15,000	11,000	24,000

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Table 17. (cont.)

	Screening Values ^a		SB-10-SO-5	SB-10-SO-7	SB-10-SO-9	SB-10-SO-10	SB-10-SO-11
	Lower	Upper					
Metals							
Antimony	0.27 M	78 I	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.84 *
Arsenic	18 P	46 M	3.6 U	2.2 J	2.6	1.7	5
Barium	330 I	2,000 M					
Beryllium	21 M	40 I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	0.36 M	140 I	1 U *	1 U *	1 U *	1 U *	18 *
Chromium (total)	0.4 E	1 Q	130 **	58 **	16 J **	10 J **	430 J **
Copper	28 A	80 I	120 **	81 **	19	12	1,300 **
Lead	11 A	1,700 I	52 *	28 *	12 *	9.5	140 *
Mercury	0.1 E	0.3 Q	0.1 UR	0.1 U	0.1 U	0.1 U	0.32 **
Nickel	30 Q	200 E	500 **	120 *	18	8.5	890 **
Zinc	50 Q	200 E	26,000 **	1,500 **	50	2,900 **	4,100 **
Total cyanide	--	--	2 U	2 U	2 U	2 U	6.6
Semivolatile Organic Compounds							
1,4-Dichlorobenzene	--	--	0.56 U	0.43 U	0.4 U	0.46 U	0.1 J
bis[2-Ethylhexyl]phthalate	--	--	0.26 J	0.31 J	0.067 J	0.46 U*	19 B
Benzyl butyl phthalate	--	--	0.56 U	0.43 U	0.4 U	0.46 U	0.9
Carbazole	--	--	1.3	2.7	0.4 U	0.46 U	0.12 J
Dibenzofuran	--	--	0.3 J	0.2 J	0.4 U	0.46 U	0.099 J
di-n-Butylphthalate	200 Q	--	0.27 J	0.11	0.4 U*	0.15 J	0.34 J
di-n-Octylphthalate	--	--	0.21 J	0.43 U	0.4 U	0.46 U	0.5 U
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	--	--	0.56 U	0.43 U	0.4 U	0.46 U	0.095 J
Acenaphthene	20 Q	--	0.39 J	0.27 J	0.4 U	0.46 U	0.14 J
Acenaphthylene	--	--	0.4 J	0.22 J	0.4 U	0.46 U	0.5 U
Anthracene	--	--	2	1.6	0.4 U	0.46 U	0.21 J
Benz[a]anthracene	--	--	6.5	14 E	0.4 U	0.46 U	0.82
Benzo[a]pyrene	--	--	22	10 E	0.4 U	0.46 U	0.91
Benzo[b]fluoranthene	--	--	40	17 E	0.055 J	0.053 J	1.2
Benzo[ghi]perylene	--	--	15	7.2	0.4 U	0.11 J	0.96
Benzo[k]fluoranthene	--	--	0.56 U	0.43 U	0.4 U	0.46 U	0.39 J
Chrysene	--	--	16	7.4	0.4 U	0.46 U	0.92
Dibenz[a,h]anthracene	--	--	4	3.5	0.4 U	0.46 U	0.3 J
Fluoranthene	--	--	7.7	24 E	0.065 J	0.083 J	1.2
Fluorene	30 E	--	0.43 J	0.35 J	0.4 U	0.46 U	0.14 J
Indeno[1,2,3-cd]pyrene	--	--	17	10	0.4 U	0.46 U	1.1
Naphthalene	--	--	0.065 J	0.43 U	0.4 U	0.46 U	0.16 J
Phenanthrene	--	--	5.3	9.6 E	0.4 U	0.05 J	1
Pyrene	--	--	7.1	14 E	0.059 J	0.058 J	1.2

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Table 17. (cont.)

	Screening Values ^a		SB-10-SO-5	SB-10-SO-7	SB-10-SO-9	SB-10-SO-10	SB-10-SO-11
	Lower	Upper					
Volatile Organic Compounds							
Acetone	--	--	0.15 <i>U</i> *	2.4	0.01 <i>J</i>	1.8	0.3 <i>EB</i>
Dichloromethane	--	--	0.017 <i>U</i> *	0.004 <i>J</i>	0.012 <i>U</i>	0.014 <i>U</i> *	0.015 <i>U</i>
Trichloroethylene	--	--	0.009 <i>U</i>	0.007 <i>U</i>	0.006 <i>U</i>	0.007 <i>U</i>	0.008 <i>U</i>
Xylene (total)	--	--	0.009 <i>U</i>	0.002 <i>J</i>	0.006 <i>U</i>	0.007 <i>U</i>	0.008 <i>U</i>
Total Petroleum Hydrocarbon							
Petroleum hydrocarbons	--	--	730	99	25 <i>UU</i>	25 <i>UU</i>	390 <i>J</i>
Conventional Variables							
Total organic carbon	--	--	12,000	5,200	5,700	2000 <i>U</i>	30,000

Note: Concentrations are mg/kg dry weight.

- * - concentration exceeds lower screening value
 ** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efroymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efroymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efroymson et al. (1997a,b).

^b Field duplicate.

Table 18. Results of screening evaluations for soils collected in Area 11 in 1994 and 1998

	Screening Values ^a		B9-2	B9-3	B9-4	SB-9-SO-8	SB-10-SO-8
	Lower	Upper					
Metals							
Arsenic	18 P	46 M	590 **	42 *	96 **	35 *	2.4
Barium	330 I	2,000 M	110	140	570 *		
Beryllium	21 M	40 I	0.73	0.92	1.2	1.2	0.88
Cadmium	0.36 M	140 I	4.9 *	0.58 U	1.5 *	1.4 *	1 U *
Chromium (total)	0.4 E	1 Q	280 **	37 **	42 **	53 **	13 **
Copper	28 A	80 I	49 *	42 *	220 **	42 *	12
Lead	11 A	1,700 I	70 *	80 *	68 *	57 *	15 *
Nickel	30 Q	200 E	20	35 *	110 *	63 *	13
Zinc	50 Q	200 E	120 *	220 **	1,200 **	380 **	37
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	20 Q	--	0.64 J	3.9 U	0.37 U	0.43 U	0.46 U
Anthracene	--	--	0.91 J	3.9 U	0.046 J	0.43 U	0.46 U
Benzo[a]anthracene	--	--	1.3 J	3.9 U	0.14 J	0.14 J	0.46 U
Benzo[a]pyrene	--	--	1.2 J	3.9 U	0.17 J	0.14 J	0.46 U
Benzo[b]fluoranthene	--	--	1 J	3.9 U	0.21 J	0.21 J	0.46 U
Benzo[ghi]perylene	--	--	3.9 U	3.9 U	0.1 J	0.14 J	0.46 U
Benzo[k]fluoranthene	--	--	1.6 J	3.9 J	0.21 J	0.065 J	0.46 U
Chrysene	--	--	1.4 J	3.9 U	0.2 J	0.17 J	0.46 U
Dibenz[a,h]anthracene	--	--	3.9 U	3.9 U	0.056 J	0.43 U	0.46 U
Fluoranthene	--	--	3.1 J	3.9 U	0.29 J	0.28 J	0.46 U
Fluorene	30 E	--	0.58 J	3.9 U	0.37 U	0.43 U	0.46 U
Indeno[1,2,3-cd]pyrene	--	--	3.9 U	3.9 U	0.096 J	0.16 J	0.46 U
Naphthalene	--	--	0.44 J	3.9 J	0.37 J	0.43 U	0.46 U
Phenanthrene	--	--	3.2 J	3.9 U	0.16 J	0.18 J	0.46 U
Pyrene	--	--	2.6 J	3.9 U	0.21 J	0.25 J	0.051 J
Volatile Organic Compounds							
Acetone	--	--					0.007 J
Conventional Variables							
Total organic carbon	--	--					15,000

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efronson et al. (1997a)

Table 18. (cont.)

- I - eco-screening value for Soil Invertebrate
- J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met
- M - eco-screening value for Mammal
- P - eco-screening value for Plant
- Q - screening value for plants from Efroymson et al. (1997b)
- U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efroymson et al. (1997a,b).

^b Field duplicate.

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Table 19. Results of screening evaluations for soils collected in Area 11 in 2000

	Screening Values ^a		Upper	BF-S1	BF-S2	BF-S2 ^b	BF-S3	BF-S4	BF-S5	BF-S6
	Lower									
Metals										
Arsenic	18 P	46 M	7.8	11.4	12.2	9.8	16.1			
Beryllium	21 M	40 I	1.1	1.1	1.1	1	0.49			
Cadmium	0.36 M	140 I	0.54 B *	0.33 B	0.47 B *	0.58 B *	0.08 U			
Chromium	0.4 E	1 Q	279	91.7 **	115 **	141 **	21.3 **			
Chromium, hexavalent	81 M	--	31.9	7.3	7	12.2	2 U	21.4		13.9
Copper	28 A	80 I	130	66 *	78.2 *	86.6 **	34 *			
Lead	11 A	1700 I	162	178 *	222 *	262 *	41 *			
Mercury	0.1 E	0.3 Q	0.35	0.26 *	0.45 **	0.39 **	0.03 B			
Nickel	30 Q	200 E	34.8	24	26.7	30.2 *	10.1			
Silver	4.2 A	560 P	1.3 B	0.31 U	0.29 B	0.3 U	0.24 U			
Zinc	50 Q	200 E	396	296 **	348 **	417 **	141 *			
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	20 Q	--	0.14 J	0.11 J	0.14 J	0.24 J	0.095 J	0.24 J	0.23 J	
Acenaphthylene	--	--	0.97	0.24 J	0.26 J	0.28 J	0.12 J	1	1.2	
Anthracene	--	--	0.84	0.3 J	0.44 J	0.69	0.42	1.3	1.4	
Benz[a]anthracene	--	--	2.8	1.6	2	3	1.3	3.9	3.6	
Benzo[a]pyrene	--	--	3.2	1.7	2.1	3.4	1	4.1	3.8	
Benzo[b]fluoranthene	--	--	4.2	2.4	3.1	4.9	1.3	6	4.7	
Benzo[ghi]perylene	--	--	2	1	0.94	1.4	0.44	1	1.9	
Benzo[k]fluoranthene	--	--	1.5	1.2	1.4	2.4	0.62	2.3	2	
Chrysene	--	--	4.3	2.3	2.9	4.5	1.5	5.7	5.4	
Dibenz[a,h]anthracene	--	--	0.42	0.21	0.24	0.33	0.11	0.33	0.46	
Fluoranthene	--	--	5.1	3.4	4	6.2	3.1	7.2	6.8	
Fluorene	30 E	--	0.24 J	0.12 J	0.14 J	0.24 J	0.099 J	0.44	0.39 J	
Indeno[1,2,3-cd]pyrene	--	--	2	1.2	1.1	1.7	0.57	1.2	1.8	
Naphthalene	--	--	0.25 J	0.045 J	0.054 J	0.052 J	0.0099 J	0.3 J	0.35 J	
Phenanthrene	--	--	3.4	1.7	2.2	3.7	1.7	5.5	5.1	
Pyrene	--	--	7.8	4.1	5.6	8.2	2.7	9.4	9.4	

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Table 19. (cont.)

	Screening Values ^a		BF-S1	BF-S2	BF-S2 ^b	BF-S3	BF-S4	BF-S5	BF-S6
	Lower	Upper							
Polychlorinated Biphenyls									
Atoclor® 1260	40 Q	--	20	1.4	1.7	1.8	0.13	1.7 U	0.82 U
Atoclor® 1262	40 Q	--	2.1 U	0.096 U	0.089 U	0.092 U	0.073 U	27	15

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Table 19. (cont.)

	Screening Values ^a		BF-S7	BF-S8	BF-S9	BF-S10	BF-S11	BF-S12	BF-S13
	Lower	Upper							
Metals									
Arsenic	18 P	46 M							3.7
Beryllium	21 M	40 I							1.9
Cadmium	0.36 M	140 I							0.21 B
Chromium	0.4 E	1 Q							22.7 **
Chromium, hexavalent	81 M	--	2 U	8.6					2 U
Copper	28 A	80 I							
Lead	11 A	1700 I							92.8 *
Mercury	0.1 E	0.3 Q							0.02 B
Nickel	30 Q	200 E							23.4
Silver	4.2 A	560 P							0.31 U
Zinc	50 Q	200 E							104 *
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	20 Q	--	0.016 J	0.023 J	0.4 U	0.02 J	0.0089 J	0.065 J	0.04 J
Acenaphthylene	--	--	0.062 J	0.18 J	0.016 J	0.074 J	0.014 J	0.12 J	0.14 J
Anthracene	--	--	0.055 J	0.13 J	0.012 J	0.076 J	0.017 J	0.21 J	0.12 J
Benz[a]anthracene	--	--	0.23	0.35	0.065	0.4	0.07	1.1	0.47
Benzofluoranthene	--	--	0.22	0.41	0.046	0.41	0.063	1.2	0.49
Benzofluoranthene	--	--	0.3	0.48	0.064	0.68	0.099	2.1	0.68
Benzofluoranthene	--	--	0.14 J	0.26 J	0.036 J	0.14 J	0.052 J	0.42 J	0.21 J
Benzofluoranthene	--	--	0.12	0.22	0.022 J	0.24	0.038 J	0.71	0.33
Chrysene	--	--	0.34 J	0.56	0.069 J	0.54	0.093 J	1.6	0.68
Dibenz[a,h]anthracene	--	--	0.035 J	0.057	0.04 U	0.043 J	0.011 J	0.11	0.078
Fluoranthene	--	--	0.47 J	0.7	0.1 J	0.83	0.14 J	2.6	1
Fluorene	30 E	--	0.02 J	0.045 J	0.4 U	0.028 J	0.0089 J	0.076 J	0.051 J
Indeno[1,2,3-cd]pyrene	--	--	0.14	0.23	0.028 J	0.17	0.041 J	0.5	0.2
Naphthalene	--	--	0.02 J	0.039 J	0.4 U	0.015 J	0.0087 J	0.03 J	0.027 J
Phenanthrene	--	--	0.26 J	0.39 J	0.058 J	0.35 J	0.081 J	1.1	0.55
Pyrene	--	--	0.5	0.83	0.11 J	0.82	0.14 J	2.4	1

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Table 19. (cont.)

	Screening Values ^a		BF-S7	BF-S8	BF-S9	BF-S10	BF-S11	BF-S12	BF-S13
	Lower	Upper							
Polychlorinated Biphenyls									
Aroclor® 1260	40 Q	--	0.097 U	0.42 U	0.08 U	0.21	0.086 U	0.089 U	0.081 U
Aroclor® 1262	40 Q	--	0.29	3.8	0.08 U	0.091 U	0.086 U	0.57	0.15

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Table 19. (cont.)

	Screening Values ^a		Upper	BF-S14	BF-S15	BF-S16	BF-S17	BF-S18	BF-S19	BF-S20
	Lower									
Metals										
Arsenic	18 P	46 M	4.3							
Beryllium	21 M	40 I	1.1							
Cadmium	0.36 M	140 I	0.37 B *							
Chromium	0.4 E	1 Q	169 **							
Chromium, hexavalent	81 M	--	2 U	2 U	2 U	2 U	2 U	2 U		2 U
Copper	28 A	80 I								
Lead	11 A	1700 I	98.9 *							
Mercury	0.1 E	0.3 Q	0.15 *							
Nickel	30 Q	200 E	23.8							
Silver	4.2 A	560 P	0.3 U							
Zinc	50 Q	200 E	255 **							
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	20 Q	--	0.15 J	0.084 J	0.04 J	0.15 J	0.057 J			0.4 U
Acenaphthylene	--	--	0.43	0.3 J	0.14 J	0.27 J	0.16 J			0.4 U
Anthracene	--	--	0.64	0.27 J	0.14 J	0.4 J	0.15 J			0.014 J
Benz[a]anthracene	--	--	2.2	1.1	0.34	1.5	0.56			0.072
Benzo[a]pyrene	--	--	2.2	1.2	0.5	1.7	0.61			0.075
Benzo[b]fluoranthene	--	--	3.3	1.9	0.69	2.6	0.9			0.11
Benzo[ghi]perylene	--	--	0.32 J	0.3 J	0.23 J	0.41 J	0.21 J			0.032 J
Benzo[k]fluoranthene	--	--	1.5	0.94	0.34	0.43 U	0.41			0.04 U
Chrysene	--	--	2.6	1.5	0.73	2.7	0.86			0.11 J
Dibenz[a,h]anthracene	--	--	0.14	0.12	0.068	0.15	0.068			0.04 U
Fluoranthene	--	--	4.1	2.3	1.1	3.1	1.3			0.17 J
Fluorene	30 E	--	0.2 J	0.11 J	0.066 J	0.17 J	0.068 J			0.45 U
Indeno[1,2,3-cd]pyrene	--	--	0.42	0.36	0.22	0.54	0.24			0.04 J
Naphthalene	--	--	0.11 J	0.05 J	0.021 J	0.072 J	0.04 J			0.45 U
Phenanthrene	--	--	2.2	1.2	0.79	1.9	0.78			0.083 J
Pyrene	--	--	4.2	2.4	1.2	3.3	1.4			0.16 J

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Table 19. (cont.)

	Screening Values ^a		BF-S14	BF-S15	BF-S16	BF-S17	BF-S18	BF-S19	BF-S20
	Lower	Upper							
Polychlorinated Biphenyls									
Aroclor® 1260	40 Q	--	7	0.3	0.076 U	0.087 U	0.085 U	0.095 U	0.091 U
Aroclor® 1262	40 Q	--	0.78 U	0.087 U	0.076 U	0.17	0.085 U	0.095 U	0.091 U

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Table 19. (cont.)

	Screening Values ^a		BF-S20 ^b	BF-S21	BF-S22
	Lower	Upper			
Metals					
Arsenic	18 P	46 M		5	4.1
Beryllium	21 M	40 I		0.52	0.9
Cadmium	0.36 M	140 I		0.09 U	0.1 U
Chromium	0.4 E	1 Q		15.6 **	16.5 **
Chromium, hexavalent	81 M	--	2 U	2 U	2 U
Copper	28 A	80 I			
Lead	11 A	1700 I		52.2 *	44.5 *
Mercury	0.1 E	0.3 Q		0.1	0.09
Nickel	30 Q	200 E		8.9 B	11.1
Silver	4.2 A	560 P		0.34 U	0.36 U
Zinc	50 Q	200 E		45.6	51.3 *
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	20 Q	--	0.45 U	0.41 U	0.43 U
Acenaphthylene	--	--	0.018 J	0.026 J	0.43 U
Anthracene	--	--	0.019 J	0.021 J	0.0093 J
Benzo[a]anthracene	--	--	0.086	0.086	0.052
Benzo[a]pyrene	--	--	0.095	0.096	0.059
Benzo[b]fluoranthene	--	--	0.14	0.14	0.079
Benzo[ghi]perylene	--	--	0.038 J	0.035 J	0.03 J
Benzo[k]fluoranthene	--	--	0.055	0.048	0.043 U
Chrysene	--	--	0.12 J	0.12 J	0.073 J
Dibenz[a,h]anthracene	--	--	0.045 U	0.014 J	0.043 U
Fluoranthene	--	--	0.21 J	0.21 J	0.12 J
Fluorene	30 E	--	0.45 U	0.41 U	0.43 U
Indeno[1,2,3-cd]pyrene	--	--	0.046	0.058	0.03 J
Naphthalene	--	--	0.45 U	0.41 U	0.43 U
Phenanthrene	--	--	0.098 J	0.12 J	0.062 J
Pyrene	--	--	0.19 J	0.2 J	0.12 J

Table 19. (cont.)

	Screening Values ^a			
	Lower	Upper	BF-S20 ^b	BF-S21 BF-S22
Polychlorinated Biphenyls				
Aroclor [®] 1260	40 Q	--	0.09 U	0.082 U 0.086 U
Aroclor [®] 1262	40 Q	--	0.09 U	0.082 U 0.086 U

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efroyimson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - total PCB screening value for plants from Efroyimson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecossl/> unless noted as referenced from Efroyimson et al. (1997a,b).

^b Field duplicate.

Table 20. Results of screening evaluations for soils collected in Areas 6 and 7 in 2002 and 2003

Screening Values ^a									
	Lower	Upper	ASO1	ASO2	ASO3	ASO4	ASO5	ASO6	ASO7
Metals									
Antimony	0.27 M	78 I	0.88 U *	0.9 U *	2 J *	1 U *	0.98 U *	1.1 U *	0.93 U *
Arsenic	18 P	46 M	5.6	24.8 *	167 **	1.3	2.7	1.3	41.3 *
Beryllium	21 M	40 I	0.64	1.4	1	2.2 J	1.8 J	1.3 J	0.91
Cadmium	0.36 M	140 I	0.09 U	0.71 J *	0.62 J *	0.092 U	0.088 U	0.09 U	0.32 J
Chromium	0.4 E	1 Q	19.8 **	20.4 **	47.1 **	16 **	14.8 **	11.5 **	18.5 **
Chromium, hexavalent	81 M	--	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Copper	28 A	80 I	14.2	36.5 *	107 **	5.4 J	6.3 J	1.3 J	36.5 *
Lead	11 A	1,700 I	15.9 *	33.1 *	224 *	19.2 J *	10.6 J	12.7 J *	30.6 *
Mercury	0.1 E	0.3 Q	0.03 J	0.12	0.26 *	0.019 U	0.018 U	0.02 U	0.04
Nickel	30 Q	200 E	11.8	26.4 U	24.2	22.2	15.8	8.7 J	21.1
Selenium	1 Q	70 E	0.88 U	0.9 U	0.92 U	1 U	0.98 U	1.1 U	0.93 U
Silver	4.2 A	560 P	0.16 U	0.16 U	0.16 U	0.25 U	0.24 U	0.26 U	0.17 U
Zinc	50 Q	200 E	50.4 *	30.5 *	354 **	146 *	513 **	55.5 *	137
Semivolatile Organic Compounds									
Acetophenone	--	--	0.38 U	0.38 UJ	0.043 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Atrazine	--	--	0.38 U	0.38 UJ	0.39 U	0.0093 J	0.36 U	0.39 U	0.4 UJ
Benzaldehyde	--	--	0.25 J	0.38 UJ	0.18 J	0.016 J	0.011 J	0.39 UJ	0.4 UJ
Dibenzofuran	--	--	0.38 U	0.013 J	0.11 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Diphenyl	60 Q	--	0.38 U	0.38 UJ	0.39 U	0.38 U	0.36 U	0.39 U	0.4 UJ
bis[2-ethylhexyl]phthalate	--	--	0.38 U	0.38 UJ	0.21 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Butylbenzylphthalate	--	--	0.38 U	0.38 UJ	0.39 U	0.38 U	0.36 U	0.39 U	0.4 UJ
Carbazole	--	--	0.38 U	0.38 UJ	0.11 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Dibenzofuran	--	--	0.38 U	0.013 J	0.11 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Di-n-butylphthalate	200 Q	--	0.38 U	0.38 UJ	0.34 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Isophorone	--	--	0.0076 J	0.38 UJ	0.39 U	0.38 U	0.36 U	0.39 U	0.4 UJ
Polycyclic Aromatic Hydrocarbons									
2-Methylnaphthalene	--	--	0.38 U	0.027 J	0.22 J	0.38 U	0.36 U	0.39 U	0.0096 J
Acenaphthene	20 Q	--	0.38 U	0.38 UJ	0.034 J	0.38 U	0.36 U	0.39 U	0.4 UJ
Acenaphthylene	--	--	0.38 U	0.03 J	0.13 J	0.38 U	0.011 J	0.0099 J	0.4 UJ
Anthracene	--	--	0.38 U	0.039 J	0.18 J	0.38 U	0.015 J	0.39 U	0.4 UJ
Benz[a]anthracene	--	--	0.018 J	0.084 J	0.47	0.015 J	0.037	0.023 J	0.08 J
Benzofluorene	--	--	0.0092 J	0.069 J	0.52	0.0085 J	0.021 J	0.017 J	0.071 J
Benzofluoranthene	--	--	0.016 J	0.19 J	1.5	0.026 J	0.096	0.04	0.096 J
Benzofluoranthene	--	--	0.38 U	0.06 J	0.32 J	0.0079 J	0.023 J	0.015 J	0.038 J
Benzofluoranthene	--	--	0.038 U	0.073 J	0.5	0.012 J	0.034 J	0.019 J	0.049 J
Chrysene	--	--	0.019 J	0.16 J	0.88	0.023 J	0.082 J	0.042 J	0.1 J
Dibenz[a,h]anthracene	--	--	0.038 U	0.016 J	0.11	0.038 U	0.036 U	0.039 U	0.04 UJ
Fluoranthene	--	--	0.019 J	0.15 J	1.3	0.015 J	0.13 J	0.038 J	0.14 J
Fluorene	30 E	--	0.38 U	0.38 UJ	0.039 J	0.38 U	0.36 U	0.39 U	0.4 UJ

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Table 20. (cont.)

	Screening Values ^a		ASO1	ASO2	ASO3	ASO4	ASO5	ASO6	ASO7
	Lower	Upper							
Indeno[1,2,3-cd]pyrene	--	--	0.038 U	0.073 J	0.42	0.0078 J	0.023 J	0.016 J	0.036 J
Naphthalene	--	--	0.38 U	0.019 J	0.19 J	0.38 U	0.36 U	0.39 U	0.4 U
Phenanthrene	--	--	0.012 J	0.057 J	0.7	0.38 U	0.018 J	0.39 U	0.098 J
Pyrene	--	--	0.015 J	0.12 J	1	0.012 J	0.086 J	0.032 J	0.11 J
Total Petroleum Hydrocarbon									
Petroleum hydrocarbons	--	--	25 U	25 U	114	25 U	25 U	42.1	25 U

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Table 20. (cont.)

	Screening Values ^a		ASO8	ASO9	ASO10	ASO11	ASO15	ASO16
	Lower	Upper						
Metals								
Antimony	0.27 M	78 I	1.9 J *	1.6 J *			5.5 *	6.5 *
Arsenic	18 P	46 M	123 **	5.2	30 *	190 **	14.5	20.5 *
Beryllium	21 M	40 I	1.1 J	1 J			0.56	0.42 B
Cadmium	0.36 M	140 I	0.095 U	0.09 U			2.2 U *	0.85 B *
Chromium	0.4 E	1 Q	30.9 **	15.5 **			19.2 **	22.9 **
Chromium, hexavalent	81 M	--	2 U	2 U	2 U	2 U	2 U	2 U
Copper	28 A	80 I	197 J **	36.9 J *	1,080 J **	379 J **	116 **	138 **
Lead	11 A	1,700 I	169 J *	57.4 J *	523 J *	599 J *	208 *	376 *
Mercury	0.1 E	0.3 Q	0.3 *	0.05			0.17 *	0.31 **
Nickel	30 Q	200 E	610 **	10.6			17.8	25.2
Selenium	1 Q	70 E	1.1 U	1 U			3.2 *	3.4 *
Silver	4.2 A	560 P	0.26 U	0.26 U			3.4 U	0.28 B
Zinc	50 Q	200 E	2,180 **	60.2	30,100 **	2,210 **	139 *	624 **
Semivolatile Organic Compounds								
Acetophenone	--	--	0.05 J	0.012 J			0.4 U	0.045 J
Atrazine	--	--	0.39 U	0.39 U			0.4 U	0.092 J
Benzaldehyde	--	--	0.39 U	0.39 U			0.089 J	0.09 J
Dibenzofuran	--	--	0.081 J	0.042 J			0.14 J	0.17 J
Diphenyl	60 Q	--	0.055 J	0.39 U			0.045 J	0.051 J
bis[2-ethylhexyl]phthalate	--	--	0.11 J	0.39 U			0.4 U	0.37 U
Butylbenzylphthalate	--	--	0.39 U	0.39 U			0.4 U	0.37 U
Carbazole	--	--	0.12 J	0.014 J			0.058 J	0.11 J
Dibenzofuran	--	--	0.081 J	0.042 J			0.14 J	0.17 J
Di-n-butylphthalate	200 Q	--	0.48	0.39 U			0.4 U	0.37 U
Isophorone	--	--	0.39 U	0.39 U			0.4 U	0.37 U
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	--	--	0.3 J	0.093 J			0.31 J	0.35 J
Acenaphthene	20 Q	--	0.081 J	0.39 U			0.012 J	0.017 J
Acenaphthylene	--	--	0.16 J	0.024 J			0.082 J	0.12 J
Anthracene	--	--	0.25 J	0.035 J			0.11 J	0.26 J
Benz[a]anthracene	--	--	0.75	0.054			0.2	0.35
Benzo[a]pyrene	--	--	0.8	0.043			0.18	0.28
Benzo[b]fluoranthene	--	--	1.1	0.094			0.28	0.44
Benzo[ghi]perylene	--	--	0.43	0.04 J			0.14 J	0.17 J
Benzo[k]fluoranthene	--	--	0.5	0.029 J			0.29	0.45
Chrysene	--	--	1.1	0.1 J			0.41	0.59
Dibenzo[a,h]anthracene	--	--	0.14	0.039 U			0.05	0.037 U
Fluoranthene	--	--	1.3	0.13 J			0.43	0.74
Fluorene	30 E	--	0.097 J	0.39 U			0.4 U	0.37 U

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Table 20. (cont.)

	Screening Values ^a		ASO8	ASO9	ASO10	ASO11	ASO15	ASO16
	Lower	Upper						
Indeno[1,2,3-cd]pyrene	--	--	0.47	0.036 J			0.13	0.17
Naphthalene	--	--	0.2 J	0.074 J			0.22 J	0.28 J
Phenanthrene	--	--	0.94	0.13 J			0.37 J	0.41
Pyrene	--	--	1.3	0.098 J			0.38 J	1
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--	186	30.7			28.1	192

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Table 20. (cont.)

	Screening Values ^a		ASO25	ASO31	ASO32	ASO32 ^b	ASO33	ASO34	ASO34 ^b
	Lower	Upper							
Metals									
Antimony	0.27 M	78 I							
Arsenic	18 P	46 M	38.4 *	41.7 *	1.3 U *	1.9 U *	4.7 *	28.9 *	23.3 *
Beryllium	21 M	40 I			1.3	1.7	0.58		
Cadmium	0.36 M	140 I			0.99 U *	0.53 B *	0.45 B *		
Chromium	0.4 E	1 Q			29.2 **	42.8 **	26.4 **		
Chromium, hexavalent	81 M	--			2 U		2 U		
Copper	28 A	80 I			142 **	196 **	101 **		
Lead	11 A	1,700 I	22.9 *	118 *	169 *	223 *	381 *	520 *	585 *
Mercury	0.1 E	0.3 Q			0.11 *	0.15 *	0.2 *		
Nickel	30 Q	200 E	16.7	52.3 *	27.9	38.6 *	25.3		
Selenium	1 Q	70 E			0.93 B	1.2 U	1.1 U		
Silver	4.2 A	560 P			0.96 U	0.21 B	1.2 U		
Zinc	50 Q	200 E	392	612 **	2,020 **	2,580 **	253 **	169 *	164
Semivolatile Organic Compounds									
Acetophenone	--	--	0.41 U	0.021 J	0.037 J		0.13 J		
Atrazine	--	--	0.41 U	0.38 U	0.36 U		0.44 U		
Benzaldehyde	--	--	0.41 U	0.032 J	0.36 U		0.38 J		
Dibenzofuran	--	--	0.0092 J	0.02 J	0.19 J		0.44		
Diphenyl	60 Q	--	0.41 U	0.38 U	0.05 J		0.16 J		
bis[2-ethylhexyl]phthalate	--	--	0.41 U	1.5	0.26 J		0.12 J		
Butylbenzylphthalate	--	--	0.41 U	0.38 U	0.16 J		0.44 U		
Carbazole	--	--	0.063 J	0.034 J	0.081 J		0.39 J		
Dibenzofuran	--	--	0.0092 J	0.02 J	0.19 J		0.44		
Di-n-butylphthalate	200 Q	--	0.41 U	0.38 U	0.172 J		0.44 U		
Isophorone	--	--	0.41 U	0.38 U	0.36 U		0.44 U		
Polycyclic Aromatic Hydrocarbons									
2-Methylnaphthalene	--	--	0.0094 J	0.06 J	0.52		1.1		
Acenaphthene	20 Q	--	0.0084 J	0.017 J	0.027 J		0.11 J		
Acenaphthylene	--	--	0.14 J	0.04 J	0.1 J		0.47		
Anthracene	--	--	0.16 J	0.052 J	0.21 J		1		
Benz[a]anthracene	--	--	0.33	0.19	0.38		0.84		
Benz[a]pyrene	--	--	0.2	0.16	0.37		0.62		
Benzo[b]fluoranthene	--	--	0.35	0.18	0.56		1.4		
Benzo[ghi]perylene	--	--	0.16 J	0.11 J	0.2 J		0.2 J		
Benzo[k]fluoranthene	--	--	0.47	0.18	0.65		1.2		
Chrysene	--	--	0.63	0.3 J	0.65		1.6		
Dibenz[a,h]anthracene	--	--	0.04 U	0.038 U	0.06		0.094		
Fluoranthene	--	--	0.96	0.48	0.85		2.4		
Fluorene	30 E	--	0.0089 J	0.017 J	0.036 J		0.11 J		

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Table 20. (cont.)

	Screening Values ^a		ASO25	ASO31	ASO32	ASO32 ^b	ASO33	ASO34	ASO34 ^b
	Lower	Upper							
Indeno[1,2,3-cd]pyrene	--	--	0.17	0.1	0.22				0.24
Naphthalene	--	--	0.016 J	0.046 J	0.4				0.85
Phenanthrene	--	--	0.17 J	0.27 J	0.68				1.6
Pyrene	--	--	0.78	0.43	0.8				2.3
Total Petroleum Hydrocarbon									
Petroleum hydrocarbons	--	--			167	290			70.9

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Table 20. (cont.)

	Screening Values ^a									
	Lower	Upper	ISO14	ISO15	ISO16	ISO17	ISO18	ISO19		
Metals										
Antimony	0.27 M	78 I								
Arsenic	18 P	46 M	19.8 *	25.1 *	16.8	11.8	10.6	13.7		
Beryllium	21 M	40 I								
Cadmium	0.36 M	140 I								
Chromium	0.4 E	1 Q	246 **	160 **	55.9 **	18.1 **	20.5 **	21.3 **		
Chromium, hexavalent	81 M	--	19.5	2 U	2 U	2 U	2 U	2 U		
Copper	28 A	80 I	479 **	488 **	381 **	72.6 *	63.5 *	86 **		
Lead	11 A	1,700 I	406 *	500 *	213 *	142 *	107 *	211 *		
Mercury	0.1 E	0.3 Q								
Nickel	30 Q	200 E	195 *	177 *	144 *	16.8 B	18.6 B	16.1 B		
Selenium	1 Q	70 E								
Silver	4.2 A	560 P								
Zinc	50 Q	200 E	1,630 **	1,290 **	1,600 **	112 *	92 *	85.9 *		
Semivolatile Organic Compounds										
Acetophenone	--	--								
Atrazine	--	--								
Benzaldehyde	--	--								
Dibenzofuran	--	--								
Diphenyl	60 Q	--								
bis[2-ethylhexyl]phthalate	--	--								
Butylbenzylphthalate	--	--								
Carbazole	--	--								
Dibenzofuran	--	--								
Di-n-butylphthalate	200 Q	--								
Isophorone	--	--								
Polycyclic Aromatic Hydrocarbons										
2-Methylnaphthalene	--	--								
Acenaphthene	20 Q	--								
Acenaphthylene	--	--								
Anthracene	--	--								
Benzo[a]anthracene	--	--								
Benzo[a]pyrene	--	--								
Benzo[b]fluoranthene	--	--								
Benzo[g,h,i]perylene	--	--								
Benzo[k]fluoranthene	--	--								
Chrysene	--	--								
Dibenz[a,h]anthracene	--	--								
Fluoranthene	--	--								
Fluorene	30 E	--								

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Table 20. (cont.)

	Screening Values ^a		ISO14	ISO15	ISO16	ISO17	ISO18	ISO19
	Lower	Upper						
Indeno[1,2,3-cd]pyrene	--	--						
Naphthalene	--	--						
Phenanthrene	--	--						
Pyrene	--	--						
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--						

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Table 20. (cont.)

	Screening Values ^a		ISO20	ISO30	ISO31	ISO32	ISO34	ISO36
	Lower	Upper						
Metals								
Antimony	0.27 M	78 I						
Arsenic	18 P	46 M						
Beryllium	21 M	40 I						
Cadmium	0.36 M	140 I						
Chromium	0.4 E	1 Q	90.7 **					
Chromium, hexavalent	81 M	--	2 U					
Copper	28 A	80 I	64.6 *	1,800 **	600 **	541 **	525 **	384 **
Lead	11 A	1,700 I	150 *					
Mercury	0.1 E	0.3 Q						
Nickel	30 Q	200 E	15.4 B					
Selenium	1 Q	70 E						
Silver	4.2 A	560 P						
Zinc	50 Q	200 E	116 *	101,000 **	3,140 **	3,230 **	2,540 **	3,420 **
Semivolatile Organic Compounds								
Acetophenone	--	--						
Atrazine	--	--						
Benzaldehyde	--	--						
Dibenzofuran	--	--						
Diphenyl	60 Q	--						
bis[2-ethylhexyl]phthalate	--	--						
Butylbenzylphthalate	--	--						
Carbazole	--	--						
Dibenzofuran	--	--						
Di- <i>n</i> -butylphthalate	200 Q	--						
Isophorone	--	--						
Polycyclic Aromatic Hydrocarbons								
2-Methylnaphthalene	--	--						
Acenaphthene	20 Q	--						
Acenaphthylene	--	--						
Anthracene	--	--						
Benzo[a]anthracene	--	--						
Benzo[a]pyrene	--	--						
Benzo[b]fluoranthene	--	--						
Benzo[g,h,i]perylene	--	--						
Benzo[k]fluoranthene	--	--						
Chrysene	--	--						
Dibenzo[a,h]anthracene	--	--						
Fluoranthene	--	--						
Fluorene	30 E	--						

Table 20. (cont.)

	Screening Values ^a		ISO20	ISO30	ISO31	ISO32	ISO34	ISO36
	Lower	Upper						
Indeno[1,2,3-cd]pyrene	--	--						
Naphthalene	--	--						
Phenanthrene	--	--						
Pyrene	--	--						
Total Petroleum Hydrocarbon								
Petroleum hydrocarbons	--	--						

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Table 20. (cont.)

	Screening Values ^a		ISO37	ISO38	ISO40	ISO42
	Lower	Upper				
Metals						
Antimony	0.27 M	78 l				
Arsenic	18 P	46 M				
Beryllium	21 M	40 l	18.7	11.9	12.1	9.3
Cadmium	0.36 M	140 l				
Chromium	0.4 E	1 Q				
Chromium, hexavalent	81 M	--				
Copper	28 A	80 l	320	**		
Lead	11 A	1,700 l				
Mercury	0.1 E	0.3 Q	172	*	97.4	218
Nickel	30 Q	200 E				
Selenium	1 Q	70 E				
Silver	4.2 A	560 P				
Zinc	50 Q	200 E	2,650	**	319	100
Semivolatile Organic Compounds						
Acetophenone	--	--				
Atrazine	--	--				
Benzaldehyde	--	--				
Dibenzofuran	--	--				
Diphenyl	60 Q	--				
bis[2-ethylhexyl]phthalate	--	--				
Butylbenzylphthalate	--	--				
Carbazole	--	--				
Dibenzofuran	--	--				
Di-n-butylphthalate	200 Q	--				
Isophorone	--	--				
Polycyclic Aromatic Hydrocarbons						
2-Methylnaphthalene	--	--				
Acenaphthene	20 Q	--				
Acenaphthylene	--	--				
Anthracene	--	--				
Benzo[a]anthracene	--	--				
Benzo[a]pyrene	--	--				
Benzo[b]fluoranthene	--	--				
Benzo[g,h,i]perylene	--	--				
Benzo[k]fluoranthene	--	--				
Chrysene	--	--				
Dibenzo[a,h]anthracene	--	--				
Fluoranthene	--	--				
Fluorene	30 E	--				

Table 20. (cont.)

	Screening Values ^a		ISO37	ISO38	ISO40	ISO42
	Lower	Upper				
Indeno[1,2,3-c]pyrene	--	--				
Naphthalene	--	--				
Phenanthrene	--	--				
Pyrene	--	--				
Total Petroleum Hydrocarbon						
Petroleum hydrocarbons	--	--				

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the

concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efraymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efraymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efraymson et al. (1997a,b).

^b Field duplicate.

Table 21. Results of screening evaluations for soils collected in Area 8 in 2002 and 2003

Metals	Screening Values ^a		ISO13	ISO13 ^b	JSO4	JSO22	JSO22 ^b	JSO23	JSO24	JSO25	JSO26
	Lower	Upper									
Asenic	18 P	46 M	12.3	15.6		10.6	23.1 *	3.5	61.9	63.4	83.8
Barium	330 I	2000 M				213 J	199 J	130 J	24.5	19	21.5 **
Chromium (total)	0.4 E	1 Q	23.8 **	20.7 **		539	128 **	25.3 **	2 U	2 U	2 U
Chromium, hexavalent	81 M	--	2 U	2 U		10.3	8.7	4.2	33.4 *	70.4 *	69.9 *
Copper	28 A	80 I	78.3 *	93.4 *		188 J	136 J **	43.9 J *	36.9 *	59	75.8 *
Lead	11 A	1700 I	138 *	167 *		154	120 *	30.8 *	17	14.3	14.8
Nickel	30 Q	200 E	26.4	29.2 B		135 J *	100 J *	22.5 J *	91.4 *	210	129 *
Zinc	50 Q	200 E	232	311		1490 J	1210 J **	198 J *	0.5 U	0.5 U	0.5 U
Cyanide	--	--				1.8	1.3	0.5 U	0.43 U	0.42 U	0.43 U
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	20 Q	--				0.43 J	0.78	0.02 J	0.43 U	0.068 J	0.06 J
Acenaphthylene	--	--				0.11 J	0.1 J	0.034 J	0.43 U	0.14 J	0.15 J
Anthracene	--	--				1.2	1.8	0.067 J	0.015 J	0.077	0.073
Benz[a]anthracene	--	--				2.7	3.1	0.24	0.055	0.077	0.065
Benzo[a]pyrene	--	--				2.9	3.2	0.25	0.067	0.11	0.092
Benzo[b]fluoranthene	--	--				4.1	4.1	0.39	0.072	0.095 J	0.086 J
Benzo[ghi]perylene	--	--				1.9	1.8	0.18 J	0.07 J	0.11	0.13 J
Benzo[k]fluoranthene	--	--				1.8	1.6	0.16	0.063	0.11	0.092
Benzofluorene	--	--				4.1	3.3	0.3 J	0.12 J	0.11 J	0.13 J
Benzofluoranthene	--	--				0.47	0.54	0.049	0.029 J	0.042 U	0.043 U
Fluorene	30 E	--				5.6	6.8	0.54	0.12 J	0.14 J	0.18 J
Indeno[1,2,3-cd]pyrene	--	--				0.5	0.85	0.02 J	0.43 U	0.0087 J	0.43 U
Naphthalene	--	--				2.2	2.1	0.19	0.042 J	0.076	0.078
Phenanthrene	--	--				0.33 J	0.38 J	0.067 J	0.43 U	0.027 J	0.12 J
Pyrene	--	--				3.6	3.4	0.26 J	0.16 J	0.077 J	0.16 J
Polychlorinated Biphenyls											
Aroclor [®] 1254	--	--			0.36 U	0.19	0.17	0.076 U	0.086 U	0.084 U	0.086 U
Aroclor [®] 1260	--	--			7.6	0.092 U	0.08 U	0.076 U	0.086 U	0.084 U	0.086 U
Aroclor [®] 1262	--	--			0.36 U	0.17	0.17	0.076 U			
Total PCBs	40 Q	--			7.6	0.36	0.34	0.076 U			

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Table 21. (cont.)

	Screening Values ^a		JSO27	JSO28	JSO34	ZSO6
	Lower	Upper				
Metals						
Arsenic	18 P	46 M				9.8 J
Barium	330 I	2000 M	105	100 B		
Chromium (total)	0.4 E	1 Q	23.7	37.3		27 **
Chromium, hexavalent	81 M		2 U	2 U		2 U
Copper	28 A	80 I	96.9	46.8	58.4	27
Lead	11 A	1700 I	424	61.9	20.8	14.5 J
Nickel	30 Q	200 E	14.5	21.1 B		12.7
Zinc	50 Q	200 E	83.1	150	104	44.7
Cyanide	--	--	0.5 U	0.5 U		
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	20 Q		0.022 J	0.41 U		
Acenaphthylene	--	--	0.18 J	0.032 J		
Anthracene	--	--	0.35 J	0.051 J		
Benzo[a]anthracene	--	--	0.3 J	0.092		
Benzo[a]pyrene	--	--	0.2 J	0.072		
Benzo[b]fluoranthene	--	--	0.6 J	0.1		
Benzo[k]fluoranthene	--	--	0.17 J	0.05 J		
Chrysene	--	--	0.5 J	0.1		
Dibenz[a,h]anthracene	--	--	0.79	0.16 J		
Fluoranthene	--	--	0.07	0.041 U		
Indeno[1,2,3-cd]pyrene	30 E		0.74	0.19 J		
Naphthalene	--	--	0.032 J	0.41 U		
Phenanthrene	--	--	0.18	0.024		
Pyrene	--	--	0.26 J	0.4 J		
Polychlorinated Biphenyls						
Aroclor [®] 1254	--	--	0.11 U	0.083 U		
Aroclor [®] 1260	--	--	0.19	0.083 U		
Aroclor [®] 1262	--	--				
Total PCBs	40 Q	--	0.19			

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value
 ** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efraymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efraymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efraymson et al. (1997a,b).

^b Field duplicate.

Table 22. Results of screening evaluations for soils collected in Area 10 in 2002 and 2003

	Screening Values ^a		Upper	Lower	HSO12	HSO13	HSO14	HSO15	HSO16	WSO1	WSO2	WSO5	WSO6
Metals													
Arsenic	18 P	46 M			4.8 J	22.7 J *	30 J *	9.6 J	7.9 J			12.3 J	6.3 J
Barium	330 I	2,000 M										135	
Beryllium	21 M	40 I			0.36 J	0.56	1.3	0.51	0.42 J				0.27 J
Cadmium	0.36 M	140 I			0.27 J	2	0.09 U	0.25 J	1 J *				0.1 U
Chromium (total)	0.4 E	1 Q			344	977	94.4	158	187			59.3	29.8
Chromium (hexavalent)	81 M	--										5.8	3.3
Copper	28 A	80 I			384	739	115	108	75.1	293		91	21 J
Lead	11 A	1,700 I			117	398	65.7	555	264			32.7	16.1 J *
Mercury	0.1 E	0.3 Q			0.06	0.26	0.04 J	0.12	0.27				0.03 J
Nickel	30 Q	200 E			523	2250	212	69	196			157	37.1 J *
Selenium	1 Q	70 E			0.93 U	1 J	0.99 U	0.97 U	0.96 U				1.2 U
Zinc	50 Q	200 E			28,100	5,530	544	4,080	2,810	1,830		768	159
Total cyanide	--	--										0.5 U	
Semivolatile Organic Compounds													
Carbazole	--	--											0.02 J
Polyaromatic Hydrocarbons													
Acenaphthene	20 Q	--			0.014 J	0.37 U	0.016 J	0.2 J	0.53			0.4 U	0.43 U
Acenaphthylene	--	--			0.021 J	0.047 J	0.033 U	0.054 J	0.27 J			0.4 U	0.43 U
Anthracene	--	--			0.057 J	0.1 J	0.052 J	0.32 J	1			0.02 J	0.11 J
Benz[a]anthracene	--	--			0.63	0.096	0.2	1.3	2.3			0.085	0.26
Benz[a]pyrene	--	--			0.39	0.12	0.17	1.3	2.1			0.088	0.27
Benz[b]fluoranthene	--	--			0.87	0.26	0.25	2.1	3.3			0.1	0.97
Benz[ghi]perylene	--	--			0.15 J	0.1 J	0.1 J	0.55	0.62			0.044 J	0.3 J
Benz[k]fluoranthene	--	--			0.38	0.11	0.13	0.93	1.3			0.04 U	0.38
Chrysene	--	--			0.67	0.14 J	0.21 J	1.4	2.3			0.08 J	0.85
Dibenz[a,h]anthracene	--	--			0.03 U	0.03 J	0.033 J	0.16	0.22			0.04 U	0.12
Fluoranthene	--	--			0.75	0.14 J	0.33 J	2.3	5.3			0.12 J	0.26 J
Fluorene	30 E	--			0.015 J	0.37 U	0.015 J	0.16 J	0.49			0.4 U	0.43 U
Indeno[1,2,3-cd]pyrene	--	--			0.062	0.12	0.11	0.64	0.76			0.049	0.36
Naphthalene	--	--			0.37 U	0.37 U	0.39 U	0.052 J	0.14 J			0.4 U	0.43 U
Phenanthrene	--	--			0.18 J	0.081 J	0.19 J	1.8	5.3			0.077 J	0.061 J
Pyrene	--	--			1.1	0.13 J	0.27 J	2.1	4.6			0.12 J	0.2 J

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Table 22. (cont.)

	Screening Values ^a		WSO10	WSO11	WSO12	WSO13	WSO14	WSO15	WSO20
	Lower	Upper							
Metals									
Arsenic	18 P	46 M							
Barium	330 I	2,000 M	252 B	50.9 B	10.9	15	4	4.9	16.5
Beryllium	21 M	40 I							
Cadmium	0.36 M	140 I							
Chromium (total)	0.4 E	1 Q	77.3	19.6 **	569 **	635 **	207 **	281 **	
Chromium (hexavalent)	81 M	--	2 U	2 U					
Copper	28 A	80 I	232	34 *	3,010 **	1,040 **	115 **	98.3 **	
Lead	11 A	1,700 I	236	47.2 *	326 *	153 *	94.8 *	32.4 *	261 *
Mercury	0.1 E	0.3 Q							
Nickel	30 Q	200 E	96.9 *	15.2	1,020 **	981 **	235 **	181 *	
Selenium	1 Q	70 E							
Zinc	50 Q	200 E	1,190 **	83.2 *	12,900 **	6,330 **	5,060 **	297 **	122 *
Total cyanide	--	--	2.8	0.5 U					
Semivolatile Organic Compounds									
Carbazole	--	--							
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	20 Q	--	0.028 J	0.45 U					
Acenaphthylene	--	--	0.071 J	0.45 U					
Anthracene	--	--	0.094 J	0.063 J					
Benzo[a]anthracene	--	--	0.22	0.038 J					
Benzo[a]pyrene	--	--	0.23	0.039 J					
Benzo[b]fluoranthene	--	--	0.27	0.036 J					
Benzo[ghi]perylene	--	--	0.17 J	0.029 J					
Benzo[k]fluoranthene	--	--	0.34	0.053					
Chrysene	--	--	0.39 J	0.052 J					
Dibenz[a,h]anthracene	--	--	0.04 U	0.045 U					
Fluoranthene	--	--	0.54	0.079 J					
Fluorene	30 E	--	0.021 J	0.45 U					
Indeno[1,2,3-cd]pyrene	--	--	0.17	0.023 J					
Naphthalene	--	--	0.23 J	0.45 U					
Phenanthrene	--	--	0.47 J	0.04 J					
Pyrene	--	--	0.5	0.075 J					

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efraymonson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - screening value for plants from Efraymonson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efraymonson et al. (1997a,b).^b Field duplicate.

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Table 23. Results of screening evaluations for soils collected in Area 11 in 2002 and 2003

	Screening Values ^a									
	Lower	Upper	CSO2	CSO3	CSO4	CSO5	HSO17	HSO18	HSO19	HSO20
Metals										
Arsenic	18 P	46 M	7.3 J	5.9 J	44.2 B	8.2	258 J **	8.3 J	2.6 J	4.1 J
Barium	330 I	2,000 M								
Beryllium	21 M	40 I	1.2	2.4			1	1.1	1.1	0.78
Cadmium	0.36 M	140 I	0.1 U	0.16 U			0.41 J *	0.1 U	0.08 U	0.091 U
Chromium (total)	0.4 E	1 Q	19.9	57.7 **	11.9 **		29.8 **	23.4 **	19 **	16.1 **
Chromium (hexavalent)	81 M	--			2 U					
Copper	28 A	80 I	15	48.1 *	30.1 *		47.6 *	24.3	17.3	32.6 *
Lead	11 A	1,700 I	26	29.3 *	24.4 *		97.2 *	58.6 *	43.9 *	36.7 *
Mercury	0.1 E	0.3 Q	0.08	0.03 J			0.19 *	0.06	0.05	0.06
Nickel	30 Q	200 E	14.5	41.7 *	8.7 B		21	17	13.4	12.5
Zinc	50 Q	200 E	56.2	126 *	147 *		199 *	108 *	71.5 *	75.3 *
Total cyanide	--	--			0.5 U					
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	20 Q	--	0.42 U	0.44 U	0.43 U		0.054 J	0.43 U	0.01 J	0.38 U
Acenaphthylene	--	--	0.42 U	0.44 U	0.43 U		0.49 U	0.43 U	0.36 U	0.38 U
Anthracene	--	--	0.42 U	0.44 U	0.42 J		0.085 J	0.024 J	0.026 J	0.38 U
Benz[a]anthracene	--	--	0.027 J	0.04 U	0.053		0.23	0.11	0.1	0.06
Benzofluoranthene	--	--	0.04 U	0.04 U	0.053		0.19	0.086	0.1	0.038 J
Benzofluoranthene	--	--	0.04 U	0.04 U	0.051		0.27	0.12	0.14	0.058
Benzofluoranthene	--	--	0.04 U	0.04 U	0.04 J		0.11 J	0.049 J	0.062 J	0.02 J
Chrysene	--	--	0.04 U	0.04 U	0.061		0.12	0.048	0.058	0.025 J
Dibenz[a,h]anthracene	--	--	0.042 U	0.044 U	0.063 J		0.21 J	0.09 J	0.1 J	0.043 J
Fluoranthene	--	--	0.04 U	0.044 U	0.043 U		0.033 J	0.043 U	0.036 U	0.038 U
Fluorene	30 E	--	0.42 U	0.44 U	0.095 J		0.48 J	0.19 J	0.23 J	0.086 J
Indeno[1,2,3-cd]pyrene	--	--	0.04 U	0.044 U	0.42 U		0.034 J	0.43 U	0.36 U	0.38 U
Naphthalene	--	--	0.04 U	0.044 U	0.028 J		0.12	0.056	0.069	0.024 J
Phenanthrene	--	--	0.42 U	0.44 U	0.43 U		0.49 U	0.43 U	0.36 U	0.38 U
Pyrene	--	--	0.036 J	0.44 U	0.038 J		0.38 J	0.13 J	0.15 J	0.053 J
Polychlorinated Biphenyls										
Aroclor [®] 1260	40 Q	--			0.086 U		0.38 J	0.15 J	0.2 J	0.074 J

Table 23. (cont.)

	Screening Values ^a		HSO21	WSO3	WSO4	WSO16	WSO17	WSO18	WSO19
	Lower	Upper							
Metals									
Arsenic	18 P	46 M	8.1 J	17.8 J	13.3 J				11
Barium	330 I	2000 M		275	171				
Beryllium	21 M	40 I	0.72						
Cadmium	0.36 M	140 I	0.08 U						
Chromium (total)	0.4 E	1 Q	20.6						
Chromium (hexavalent)	81 M	--		337	152				
Copper	28 A	80 I	30.9	60.6	29.2	2 U			
Lead	11 A	1700 I	45.8	245	197				
Mercury	0.1 E	0.3 Q	0.08	284	246				279 *
Nickel	30 Q	200 E	14.8	111	49.7				
Zinc	50 Q	200 E	109	907	385				150 *
Total cyanide	--	--		0.5 U	0.79				
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	20 Q	--	0.0091 J	0.29 J	0.15 J				
Acenaphthylene	--	--	0.02 J	0.82	0.28 J				
Anthracene	--	--	0.043 J	1.1	0.54				
Benz[a]anthracene	--	--	0.19	3.4	2.4				
Benzo[a]pyrene	--	--	0.19	3.8	3				
Benzo[b]fluoranthene	--	--	0.27	6.1	6.1				
Benzo[ghi]perylene	--	--	0.13 J	1.2	1				
Benzo[k]fluoranthene	--	--	0.11	2.7	2.4				
Chrysene	--	--	0.18 J	4.2	3.5				
Dibenz[a,h]anthracene	--	--	0.036 J	0.39	0.31				
Fluoranthene	--	--	0.37	6.2	4.8				
Fluorene	30 E	--	0.0097 J	0.36 J	0.13 J				
Indeno[1,2,3-cd]pyrene	--	--	0.13	1.5	1.5				
Naphthalene	--	--	0.37 U	0.13 J	0.052 J				
Phenanthrene	--	--	0.18 J	4	2.6				
Pyrene	--	--	0.31 J	7.5	5.9				
Polychlorinated Biphenyls									
Aroclor [®] 1260	40 Q	--		15	1.1	0.085 U	0.032 U	0.097 U	

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efraymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - total PCB screening value for plants from Efraymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecossl/> unless noted as referenced from Efraymson et al. (1997a,b).^b Field duplicate.

Table 24. Summary of screening evaluation results for soils collected in Areas 6, 7, 8, 10 and 11 for 2002 and 2003

Areas 6, 7 and 8										Area 10	
	Screening Values ^a		Number of Samples Detected/ Analyzed	Mean (mg/kg)	Maximum (mg/kg)	Number of Samples Detected/ Analyzed	Mean (mg/kg)	Maximum (mg/kg)			
	Lower	Upper									
Metals											
Antimony	0.27 M	78 I	6/14	1.9 *	6.5 *	0/6	0.65 U	*	0.7 U	*	
Arsenic	18 P	46 M	42/42	29.8 *	190 **	12/12	12.1		30.0 J	*	
Barium	330 I	2,000 M	8/8	120	213 J	3/3	146		252 B		
Beryllium	21 M	40 I	14/14	1.1	2.2 J	6/6	0.57		1.3		
Cadmium	0.36 M	140 I	6/14	0.38 *	1.1 U	4/6	0.60	*	2.0	*	
Chromium (total)	0.4 E	1 Q	32/32	57.4 **	539 **	13/13	280	**	977	**	
Chromium (hexavalent)	81 M	--	4/33	2.2	19.5	2/4	2.8		5.8		
Copper	28 A	80 I	41/41	22.8 *	1800 **	14/14	454	**	3010	**	
Lead	11 A	1,700 I	42/42	136 *	599 J	14/14	186	*	555	*	
Mercury	0.1 E	0.3 Q	11/14	0.13 *	0.31 **	6/6	0.13	*	0.27	*	
Nickel	30 Q	200 E	34/34	57.2 *	610 **	13/13	459	**	2250	**	
Selenium	1 Q	70 E	3/14	0.93	3.4 *	1/6	0.59		1.0	*	
Silver	4.2 A	560 P	2/14	0.30	1.7 U	0/6	0.16 U		0.17	U	
Thallium	1 Q	--	0/14	0.82 J	2.9 J *	0/6	0.54 U		0.55	U	
Zinc	50 Q	200 E	48/48	3,537 **	103,000 **	15/15	4,654	**	28,100	**	
Total cyanide	--	--	2/8	0.58	1.8	1/3	1.1		2.8		
Semivolatile Organic Compounds											
3,5,5-Trimethyl-2-cyclohex	--	--	1/15	0.17	0.22 U	0/1	0.22 U		0.22 U		
Acetophenone	--	--	7/15	0.12	0.21 U	0/1	0.22 U		0.22 U		
Atrazine	--	--	2/15	0.16	0.22 U	0/1	0.22 U		0.22 U		
Benzaldehyde	--	--	8/15	0.13	0.38 J	0/1	0.11 U		0.11 U	U	
Benzyl butyl phthalate	--	--	1/15	0.18	0.22 U	0/1	0.22 U		0.22 U		
bis[2-Ethylhexyl]phthalate	--	--	6/15	0.26	1.5	0/1	0.22 U		0.22 U		
Carbazole	--	--	9/15	0.13	0.39 J	1/1	0.02		0.02 J		
Dibenzofuran	--	--	10/15	0.14	0.44	0/1	0.22 U		0.22 U		
di-n-Butylphthalate	200 Q	--	3/15	0.20	0.48	0/1	0.22 U		0.22 U		
Diphenyl	60 Q	--	5/15	0.14	0.21 U	0/1	0.22 U		0.22 U		
Polycyclic Aromatic Hydrocarbons											
2-Methylnaphthalene	--	--	11/15	0.25	1.1	0/1	0.22 U		0.22 U		
Acenaphthene	20 Q	--	12/23	0.15	0.78	5/10	0.18		0.53		
Acenaphthylene	--	--	19/23	0.11	0.47	5/10	0.15		0.27 J		
Anthracene	--	--	19/23	0.29	1.8	10/10	0.18		1.0		
Benz[a]anthracene	--	--	23/23	0.46	3.1	10/10	0.52		2.3		
Benzo[a]pyrene	--	--	23/23	0.44	3.2	10/10	0.48		2.1		
Benzo[b]fluoranthene	--	--	23/23	0.69	4.1	10/10	0.83		3.3		

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Table 24. (cont.)

	Areas 6, 7 and 8				Area 10			
	Screening Values ^a		Number of Samples Detected/ Analyzed	Mean (mg/kg)	Maximum (mg/kg)	Number of Samples Detected/ Analyzed	Mean (mg/kg)	Maximum (mg/kg)
	Lower	Upper						
Benzo[ghi]perylene	--	--	22/23	0.28	1.9	10/10	0.21	0.62
Benzo[k]fluoranthene	--	--	22/23	0.39	1.8	9/10	0.37	1.3
Chrysene	--	--	23/23	0.68	4.1	10/10	0.65	2.6
Dibenz[a,h]anthracene	--	--	11/23	0.081	0.54	6/10	0.068	0.22
Fluoranthene	--	--	23/23	1.0	6.8	10/10	1.0	5.3
Fluorene	30 E	--	11/23	0.17	0.85	5/10	0.17	0.49
Indeno[1,2,3-cd]pyrene	--	--	22/23	0.31	2.2	10/10	0.24	0.76
Naphthalene	--	--	17/23	0.26	0.85	3/10	0.18	0.23 J
Phenanthrene	--	--	21/23	0.70	5.4	10/10	0.83	5.3
Pyrene	--	--	23/23	1.0	6.5	10/10	0.93	4.6
Polychlorinated Biphenyls								
Aroclor® 1254	40 Q	--	2/9	0.089	0.19	0/4	0.043 U	0.045
Aroclor® 1260	40 Q	--	2/9	0.90	7.3	0/4	0.043 U	0.045
Aroclor® 1262	40 Q	--	2/4	0.13	0.13 U	0/2	0.04 U	0.04
Conventional Variables								
Total organic carbon	--	--						

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Table 24. (cont.)

Area 11					
	Screening Values ^a		Number of Samples Detected/ Analyzed	Mean (mg/kg)	Maximum (mg/kg)
	Lower	Upper			
Metals					
Antimony	0.27 M	78 I	0/7	0.68 U *	0.85 U *
Arsenic	18 P	46 M	10/10	33.6 *	258 J **
Barium	330 I	2,000 M	3/3	163	275
Beryllium	21 M	40 I	7/7	1.2	2.4
Cadmium	0.36 M	140 I	1/7	0.10	0.41 J *
Chromium (total)	0.4 E	1 Q	10/10	68.7 **	337 **
Chromium (hexavalent)	81 M	-	2/6	15.6	60.6
Copper	28 A	80 I	10/10	68.8 *	245 **
Lead	11 A	170 I	11/11	106 *	284 *
Mercury	0.1 E	0.3 Q	7/7	0.079	0.19 *
Nickel	30 Q	200 E	10/10	30.4 *	111 *
Selenium	1 Q	70 E	0/7	0.55 U	0.80 U
Silver	4.2 A	560 P	0/7	0.15 U	0.21 U
Thallium	1 Q	-	0/7	0.61 U	0.90 U
Zinc	50 Q	200 E	11/11	212 **	907 **
Total cyanide	--	--	1/3	0.43	0.79
Semivolatile Organic Compounds					
3,5,5-Trimethyl-2-cyclohexen-1-one	--	--			
Acetophenone	--	--			
Atrazine	--	--			
Benzaldehyde	--	--			
Benzyl butyl phthalate	--	--			
bis[2-Ethylhexyl]phthalate	--	--			
Carbazole	--	--			
Dibenzofuran	--	--			
di-n-Butylphthalate	200 Q	--			
Diphenyl	60 Q	--			
Polycyclic Aromatic Hydrocarbons					
2-Methylnaphthalene	--	--	5/10	0.16	0.29 J
Acenaphthene	20 Q	--	3/10	0.26	0.82
Acenaphthylene	--	--	7/10	0.25	1.1
Anthracene	--	--	9/10	0.66	3.4
Benzo[a]anthracene	--	--	8/10	0.75	3.8
Benzo[a]pyrene	--	--	8/10	1.3	6.1
Benzo[b]fluoranthene	--	--			

Table 24. (cont.)

Area 11				
	Screening Values ^a		Number of Samples Detected/ Analyzed	Mean (mg/kg)
	Lower	Upper		
Benzo[ghi]perylene	--	--	8/10	0.30
Benzo[k]fluoranthene	--	--	8/10	0.56
Chrysene	--	--	9/10	0.86
Dibenz[a,h]anthracene	--	--	4/10	0.089
Fluoranthene	--	--	9/10	1.3
Fluorene	30 E	--	4/10	0.18
Indeno[1,2,3-cd]pyrene	--	--	8/10	0.32
Naphthalene	--	--	2/10	0.18
Phenanthrene	--	--	8/10	0.80
Pyrene	--	--	9/10	1.5
Polychlorinated Biphenyls				
Aroclor [®] 1254	40 Q	--	0/8	0.11 U
Aroclor [®] 1260	40 Q	--	2/3	2.7
Aroclor [®] 1262	40 Q	--	0/2	0.25 U
Conventional Variables				
Total organic carbon	--	--		

Note: Concentrations are mg/kg dry weight.

* - concentration exceeds lower screening value

** - concentration exceeds upper screening value

A - eco-screening value for Avian

B - compound was detected in the associated method blank, but the sample concentration is greater than ten times the concentration of the associated method blank; therefore, the data are reported

E - screening value for Earthworm from Efraymson et al. (1997a)

I - eco-screening value for Soil Invertebrate

J - estimated concentration because results are either below the sample quantitation limit or quality control criteria was not met

M - eco-screening value for Mammal

P - eco-screening value for Plant

Q - total PCB screening value for plants from Efraymson et al. (1997b)

U - undetected at the concentration listed; for undetected values, comparisons with screening values were made using one-half the detection limit

^a Screening values are from <http://www.epa.gov/ecotox/ecoss/> unless noted as referenced from Efraymson et al. (1997a,b).

^b Field duplicate.

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Table 25. Summary of metals concentrations in fishes collected from Gold Run Pond in 1999

Chemical	Fish Sample Numbers							
	BF-1	BF-2	BF-3	BF-4	FF-1	FF-2	FF-3	FF-4
Aluminum	35.3	8.3 U	26.9	32.5	68.6	15.4	10.4	27.3
Antimony	0.07 U	0.07 U	0.07 U	0.07 U	0.08	0.07 U	0.08	0.07 U
Arsenic	0.50 U	0.52 U	0.50 U	0.51 U	0.51 U	0.52 U	0.52 U	0.51 U
Barium	0.85 U	0.88 U	2.2	0.86 U	1.8	2.8	0.88 U	2.8
Beryllium	0.04 U	0.05 U	0.04 U	0.04 U	0.04 U	0.05 U	0.05 U	0.05 U
Cadmium	0.06 U	0.16 U	0.04 U	0.06 U	0.11 U	0.06 U	0.09 U	0.08 U
Chromium	0.67	0.23	0.5	0.59	0.45	0.27	0.25	2.2
Cobalt	0.36 U	0.37 U	0.36 U	0.36 U	0.37 U	0.37 U	0.37 U	0.37 U
Copper	2.3	1.8	1.5	4.4	1.4	0.41 U	0.82	2.9
Iron	121	48.6	56.7	176	159	24.4	18.8	85
Lead	1.5 U	2.7	1.0 U	1.7	2.0 U	0.68 U	0.54 U	1.1 U
Manganese	1.6	1.0 U	3.2	2.4	3.4	2.0	1.4	8.3
Total mercury	0.25	0.23	0.22	0.34	0.32	0.42	0.33	0.34
Nickel	0.43 U	0.45 U	0.44	0.44 U	0.44 U	0.45 U	0.45 U	0.45 U
Selenium	2.8 U	2.9 U	2.8 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Silver	0.08 U	0.12 U	0.09 U	0.09 U	0.08 U	0.08 U	0.08 U	0.08 U
Thallium	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.22 U	0.21 U
Vanadium	0.26	0.27 U	0.26 U	0.27 U	0.27 U	0.28 U	0.27 U	0.33
Zinc	17.7	13.8	23.9	18.8	38.7	32.3	22.5	50.5

Source: EA (2000) for Naval Air Warfare Center (NAWC)

Note: Concentrations are mg/kg wet weight.

U - undetected at concentration listed

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Table 26. Summary of metals concentrations in the oligochaete *Lumbriculus variegatus* after a 28-day exposure to sediments from Gold Run Pond in 1999

Chemical	Station Numbers		
	EA-2	EA-6	EA-1A
Aluminum	19.58	9.66	27.22
Antimony	0.07 <i>U</i>	0.07 <i>U</i>	0.07 <i>U</i>
Arsenic	0.53 <i>U</i>	0.53 <i>U</i>	0.53 <i>U</i>
Barium	9.86	6.8	10.14
Beryllium	0.01 <i>U</i>	0.01 <i>U</i>	0.01 <i>U</i>
Cadmium	0.18 <i>U</i>	0.14 <i>U</i>	0.17 <i>U</i>
Chromium	0.78	0.71	0.59
Cobalt	0.38 <i>U</i>	0.38 <i>U</i>	0.38 <i>U</i>
Copper	3.78	2.3	3.74
Iron	149.6	82.78	136.44
Lead	1.24	1.5 <i>U</i>	1.66
Manganese	3.38	1 <i>U</i>	1.18
Total mercury	0.10 <i>U</i>	0.1 <i>U</i>	0.09 <i>U</i>
Nickel	0.46 <i>U</i>	0.46 <i>U</i>	0.48
Selenium	0.24	0.18	0.28
Silver	0.31 <i>U</i>	0.31 <i>U</i>	0.31 <i>U</i>
Thallium	0.22 <i>U</i>	0.22 <i>U</i>	0.22 <i>U</i>
Vanadium	0.28 <i>U</i>	0.28 <i>U</i>	0.28 <i>U</i>
Zinc	26.72	21.84	39.4

Source: EA (2000) for Naval Air Warfare Center (NAWC)

Note: Concentrations are mg/kg wet weight.

U - undetected at concentration listed

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Table 27. Hazard quotients calculated from the food-web model developed by EA (2000) for the U.S. Navy NAWC

Chemical	Hazard Quotient		
	Snapping Turtle	Belted Kingfisher	Raccoon
100 Percent Area Use			
Arsenic	0.01	0.07	0.88
Chromium	0.81	3.25	0.00
Copper	0.02	0.08	0.13
Lead	0.17	0.76	0.21
Mercury	0.05	0.49	0.00
Selenium	0.04	0.40	0.46
Zinc	0.30	2.11	0.06
Actual Area Use			
Arsenic	0.01	0.02	0.01
Chromium	0.81	0.91	0.00
Copper	0.02	0.02	0.00
Lead	0.17	0.21	0.00
Mercury	0.05	0.14	0.00
Selenium	0.04	0.11	0.00
Zinc	0.30	0.59	0.00

Note: Hazard Quotients from EA (2000)
NAWC - Naval Air Warfare Center

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