TABLE 4-7 (cont.)
SPM WELLS - GROUNDWATER TRENDS
SOUTH POST IMPACT AREA - WELL SPM-93-08X
CHEMICAL SUMMARY REPORT (Sheet 2 of 5)
(Concentrations in ug/l)

			DATE	08/18/93	11/10/93	08/18/93	11/10/93	10/29/97	10/22/98
			Well No.	SPM-93-08X	SPM-93-08X	SPM-93-08X	SPM-93-08X	SPM-93-08X	SPM-93-08X
PARAMETERS	BACKGROUND		FILTERED?	YES	YES	NO	NO	LOW FLOW	LOW-FLOW
	LEVELS	MA	Federal						
METALS		MCLs (ug/l)							
Silver, Total Ag	4.6	na	na	<2	<2	<2	<2	<15	<3
Aluminum, Total Al	6870	na	na	<25	42.3	109	190	<100	<200
Arsenic, Total As	10.5	50	50	1.82J	1.26J	1.64J	<2	<8	<10
Barium, Total Ba	39.6	2000	2000	4.19J	<10	4.07J	3.14J	<5	<10
Beryllium, Total Be	5	4	4	0.246J	<5	0.175	<5	<5	<3
Calcium, Total Ca	14700	na	na	3860	2640	3960	2830	2740	2760
Cadmium, Total Cd	4.01	5	5	<5	1.56	<5	<5	<10	<3
Cobalt, Total Co	25	na	na	<10	<10	<10	<10	<30	5.6
Chromium, Total Cr	14.7	100	100	<10	3.78J	<10	3.18J	23.9	<5
Copper, Total Cu	8.09	1300	1300	1.47J	<10	1.99J	<10	<25	<5
Iron, Total Fe	9100	na	na	<25	<25	220	155	155	<100
Mercury, Total Hg	0.243	2	2	--	--	--	--	<0.200	<0.2
Potassium, Total K	2370	na	na	1440	<1000	2390	513	<1000	690
Magnesium, Total Mg	3480	na	na	320J	283J	380J	358J	350	<500
Manganese, Total Mn	291	na	na	23.1	8.56	31.4	13.1	<5	<5
Sodium, Total Na	10800	na	na	3200	539	4600	2480	2290	2260
Nickel, Total Ni	34.3	na	100	<10	<10	<10	<10	<40	<5
Lead, Total Pb	4.25	15	15	<5	<5	7.18	<5	<5	<3
Antimony, Total Sb	3.03	6	6	<5	2.44	<5	<5	<8	<5
Selenium, Total Se	3.02	50	50	--	--	--	--	<10	<5
Thallium, Total Tl	6.99	2	2	<2	<2	<2	<2	<15	<2
Vanadium, Total V	11	na	na	<10	<10	<10	<10	<25	<5
Zinc, Total Zn	21.1	na	na	37.7	110	43.1	456	35.7	<10
EXPLOSIVES									
1,3,5-Trinitrobenzene	na	na	na	--	--			<0.125	<1.2
1,3-Dinitrobenzene	1	na	na	--	--	<1	3.84	<0.125	<1.2
2,4,6-Trinitrotoluene	2	na	na	--	--	--	--	<0.125	<1.2
2,4-Dinitrotoluene	30	na	na	--	--	--	--	<0.125	<1.2
2,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2
2-Amino-4,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2
2-Nitrotoluene	na	na	na	--	--	<1	0.835J	<0.125	<2.6
3-Nitrotoluene	na	na	na	--	--	<1	1.45	<0.125	<2.6
4-Amino-2,6-Dinitrotoluene	na	na	na	--	--	<1	<1	<0.125	<1.2
4-Nitrotoluene	na	na	na	--	--	--	--	<0.125	<2.6
HMX	400	na	na	--	--	0.295	<1	<1.0	<2.6
Tetryl	na	na	na	--	--	--	--	<0.5	<2.6
Nitrobenzene	na	na	na	--	--	--	--	<0.125	<1.2
RDX	2	na	na	--	--	--	--	<0.5	<2.6

Notes: Background levels for Explosives are taken from Functional Area I RI.
Background levels for metals are taken from AOC 57 RI.

LEGEND

Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-7 (cont.)
SPM WELLS - GROUNDWATER TRENDS
SOUTH POST IMPACT AREA - WELL SPM-93-10X
CHEMICAL SUMMARY REPORT (Sheet 3 of 5)
(Concentrations in ug/l)

			DATE	08/17/93	11/09/93	08/17/93	11/09/93	11/03/97	10/22/98
			Well No.	SPM-93-10X	SPM-93-10X	SPM-93-10X	SPM-93-10X	SPM-93-10X	SPM-93-10X
PARAMETERS	BACKGROUND		FILTERED?	YES	YES	NO	NO	LOW FLOW	LOW FLOW
	LEVELS	MA	Federal						
METALS		MCLs (ug/l)							
Silver, Total Ag	4.6	na	na	<2	1.61J	<2	2.34	<15	<3
Aluminum, Total Al	6870	na	na	34.8	56.1	349	528	140	<200
Arsenic, Total As	10.5	50	50	<5	<5	<5	<5	<8	<10
Barium, Total Ba	39.6	2000	2000	2.68J	<10	7.93J	4.43J	<5	<10
Beryllium, Total Be	5	4	4	0.104J	<5	<5	<5	<5	<3
Calcium, Total Ca	14700	na	na	4360	3390	4740	3220	2980	3560
Cadmium, Total Cd	4.01	5	5	<5	<5	<5	<5	<10	<3
Cobalt, Total Co	25	na	na	<10	2.46J	<10	<10	<30	11.4
Chromium, Total Cr	14.7	100	100	<10	<10	7.58J	6.03J	<15	13.5
Copper, Total Cu	8.09	1300	1300	<10	<10	3.09J	<10	<25	<5
Iron, Total Fe	9100	na	na	51.5	124	579	811	235	203
Mercury, Total Hg	0.243	2	2	--	--	--	--	<0.2	<0.2
Potassium, Total K	2370	na	na	1530	2190	1600	1930	<1000	1080
Magnesium, Total Mg	3480	na	na	842	706	906	839	750	899
Manganese, Total Mn	291	na	na	11.7	13.3	21.6	28.1	5.5	6.6
Sodium, Total Na	10800	na	na	3640	4210	3760	4240	2840	3270
Nickel, Total Ni	34.3	na	100	<10	<10	<10	<10	<40	8.1
Lead, Total Pb	4.25	15	15	<5	1.91J	<5	1.82J	<5	<3
Antimony, Total Sb	3.03	6	6	<5	<5	<5	<5	<8	<5
Selenium, Total Se	3.02	50	50	--	--	--	--	<10	<5
Thallium, Total Tl	6.99	2	2	<2	0.91	<2	<2	<15	<2
Vanadium, Total V	11	na	na	<10	<10	<10	<10	<25	<5
Zinc, Total Zn	21.1	na	na	37.1	23.7	49	36.1	<25	21.7
EXPLOSIVES									
1,3,5-Trinitrobenzene	na	na	na	--	--	--	--	<0.125	<1.2
1,3-Dinitrobenzene	1	na	na	--	--	3/25	<1	<0.125	<1.2
2,4,6-Trinitrotoluene	2	na	na	--	--	--	--	<0.125	<1.2
2,4-Dinitrotoluene	30	na	na	--	--	--	--	<0.125	<1.2
2,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2
2-Amino-4,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2
2-Nitrotoluene	na	na	na	--	--	<1	<1	<0.125	<2.6
3-Nitrotoluene	na	na	na	--	--	1.58	<1	<0.125	<2.6
4-Amino-2,6-Dinitrotoluene	na	na	na	--	--	<1	<1	<0.125	<1.2
4-Nitrotoluene	na	na	na	--	--	--	--	<0.125	<2.6
HMX	400	na	na	--	--	--	--	<1.0	<2.6
Tetryl	na	na	na	--	--	--	--	<0.5	<2.6
Nitrobenzene	na	na	na	--	--	--	--	<0.125	<1.2
RDX	2	na	na	--	--	0.334	0.782	<0.5	<2.6

Notes: Background levels for Explosives are from Functional Area I RI.
Background levels for metals are from AOC 57 RI.

LEGEND

Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-7 (cont.)
SPM WELLS - GROUNDWATER TRENDS
SOUTH POST IMPACT AREA - WELL SPM-93-12X
CHEMICAL SUMMARY REPORT (Sheet 4 of 5)
(Concentrations in ug/l)

			DATE	08/18/93	11/09/93	08/18/93	11/09/93	10/27/97	10/22/98
			Well No.	SPM-93-12X	SPM-93-12X	SPM-93-12X	SPM-93-12X	SPM-93-12X	SPM-93-12X
PARAMETERS	BACKGROUND		FILTERED?	YES	YES	NO	NO	LOW FLOW	LOW FLOW
	LEVELS	MA	Federal						
METALS		MCLs (ug/l)							
Silver, Total Ag	4.6	na	na	<2	<2	<2	<2	<15	<3
Aluminum, Total Al	6870	na	na	<25	49.8	395	352	<100	<200
Arsenic, Total As	10.5	50	50	<2	1.47J	<2	1.40J	<8	<10
Barium, Total Ba	39.6	2000	2000	2.37J	4.33J	5.67J	5.51J	<5	<10
Beryllium, Total Be	5	4	4	0.307	<5	0.234J	<5	<5	<3
Calcium, Total Ca	14700	na	na	8980	7870	9080	7360	6480	6420
Cadmium, Total Cd	4.01	5	5	<5	2.26J	<5	<5	<10	<3
Cobalt, Total Co	25	na	na	<10	2.33J	<10	3.74J	41.3	<5
Chromium, Total Cr	14.7	100	100	<10	<10	<10	3.14J	63.3	9.3
Copper, Total Cu	8.09	1300	1300	<10	<10	2.43J	<10	<25	<5
Iron, Total Fe	9100	na	na	30.9	44.9	639	521	621	<100
Mercury, Total Hg	0.243	2	2	--	--	--	--	<0.200	<0.2
Potassium, Total K	2370	na	na	2300	2030	2410	1890	1200	1210
Magnesium, Total Mg	3480	na	na	2400	2320	2610	2250	2150	2080
Manganese, Total Mn	291	na	na	320	267	333	263	32	10.6
Sodium, Total Na	10800	na	na	7530	5910	8490	5850	5230	5230
Nickel, Total Ni	34.3	na	100	<10	<10	<10	<10	81	5.6
Lead, Total Pb	4.25	15	15	<5	1.23J	<5	0.720J	<5	<3
Antimony, Total Sb	3.03	6	6	<5	1.70J	<5	<5	<8	<5
Selenium, Total Se	3.02	50	50	--	--	--	--	<10	<5
Thallium, Total Tl	6.99	2	2	<2	1.32	<2	1.05	<15	<2
Vanadium, Total V	11	na	na	<10	<10	<10	<10	<25	<5
Zinc, Total Zn	21.1	na	na	1.28J	20.6	19.8J	35.2	38.1	33.0
EXPLOSIVES									
1,3,5-Trinitrobenzene	na	na	na	--	--	--	--	<0.125J	<1.2
1,3-Dinitrobenzene	1	na	na	--	--	<1	<1	<0.125J	<1.2
2,4,6-Trinitrotoluene	2	na	na	--	--	--	--	<0.125J	<1.2
2,4-Dinitrotoluene	30	na	na	--	--	--	--	<0.125J	<1.2
2,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125J	<1.2
2-Amino-4,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125J	<1.2
2-Nitrotoluene	na	na	na	--	--	<1	<1	<0.125J	<2.6
3-Nitrotoluene	na	na	na	--	--	<1	<1	<0.125J	<2.6
4-Amino-2,6-Dinitrotoluene	na	na	na	--	--	<1	0.251J	<0.125J	<1.2
4-Nitrotoluene	na	na	na	--	--	--	--	<0.125J	<2.6
HMX	400	na	na	--	--	--	--	<1.0J	<2.6
Tetryl	na	na	na	--	--	--	--	<0.5J	<2.6
Nitrobenzene	na	na	na	--	--	--	--	<0.125J	<1.2
RDX	2	na	na	--	--	<1	0.251	<0.5J	<2.6

Notes: Background levels for Explosives are from Functional Area I RI.
Background levels for metals are from AOC 57 RI.

LEGEND

Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-7 (cont.)
SPM WELLS - GROUNDWATER TRENDS
SOUTH POST IMPACT AREA - WELLS SPM-93-16X, SPM-97-23X, SPM-97-24X
CHEMICAL SUMMARY REPORT (Sheet 5 of 5)
(Concentrations in ug/l)

			DATE	8/16/1993	11/09/93	8/16/1993	11/09/93	10/27/97	10/22/98	10/29/97	10/19/98	10/30/97	10/22/98
			Well No.	SPM-93-16X	SPM-93-16X	SPM-93-16X	SPM-93-16X	SPM-93-16X	SPM-93-16X	SPM-97-23X	SPM-97-23X	SPM-97-24X	SPM-97-24X
PARAMETERS	BACKGROUND		FILTERED?	YES	YES	NO	NO	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW
	LEVELS	MA	Federal										
METALS		MCLs (ug/l)											
Silver, Total Ag	4.6	na	na	<2	<2	<2	<2	<15	<3	<15	<3	<15	<3
Aluminum, Total Al	6870	na	na	34	<25	349	121	<100	<200	<100	<200	<100	<200
Arsenic, Total As	10.5	50	50	<2	<2	<2	0.720J	<8	<10	<8	<10	<8	<10
Barium, Total Ba	39.6	2000	2000	9.24J	<10	13	<10	<5	<10	<5	<10	9.4	<10
Beryllium, Total Be	5	4	4	<5	<5	<5	<5	<5	<3	<5	<3	<5	<3
Calcium, Total Ca	14700	na	na	6970	2700	7080	2950	2800	2850	5720	6170	9460	8790
Cadmium, Total Cd	4.01	5	5	<5	<5	<5	<5	<10	<3	<10	<3	<10	<3
Cobalt, Total Co	25	na	na	<10	2.72J	<10	<10	<30	<5	<30	<5	<30	<5
Chromium, Total Cr	14.7	100	100	<10	<10	<10	<10	21	<5	<15	<5	<15	<5
Copper, Total Cu	8.09	1300	1300	<10	<10	1.66J	<10	<25	<5	<25	<5	<25	<5
Iron, Total Fe	9100	na	na	<25	<25	521	159	190	<100	90J	<100	180	260
Mercury, Total Hg	0.243	2	2	--	--	--	--	<0.200	<0.2	<0.200	<0.2	<0.200	<0.2
Potassium, Total K	2370	na	na	1140	991J	1160	647	<1000	527	<1000	735	2200	1730
Magnesium, Total Mg	3480	na	na	784	654	890	707	714	743	1270	1290	3840	3300
Manganese, Total Mn	291	na	na	5.92	3.51J	16.4	6.16	5.6	<5	6.3	<5	17.4	<5
Sodium, Total Na	10800	na	na	2930	3430	2690	3140	2560	2580	3370	3530	3750	3310
Nickel, Total Ni	34.3	na	100	<10	<10	<10	<10	<40	<5	<40	<5	<40	<5
Lead, Total Pb	4.25	15	15	<5	<5	<5	1.05J	<5	<3	<5	<3	<5	<3
Antimony, Total Sb	3.03	6	6	<5	<5	2.46J	<5	<8	<5	<8	<5	<8	<5
Selenium, Total Se	3.02	50	50	--	--	--	--	<10	<5	<10	<5	<10	<5
Thallium, Total Tl	6.99	2	2	<2	0.85	<2	0.77	<15	<2	<15	<2	<15	<2
Vanadium, Total V	11	na	na	<10	<10	<10	<10	<25	<5	<25	<5	<25	<5
Zinc, Total Zn	21.1	na	na	22.3	38.3	79.3	44.7	<25	<10	<25	24.6	<25	17.5
EXPLOSIVES													
1,3,5-Trinitrobenzene	na	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
1,3-Dinitrobenzene	1	na	na	--	--	4.37	2.06	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
2,4,6-Trinitrotoluene	2	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
2,4-Dinitrotoluene	30	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
2,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
2-Amino-4,6-Dinitrotoluene	na	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
2-Nitrotoluene	na	na	na	--	--	0.995J	<1	<0.125	<2.6	<0.125	<2.6	<0.125	<2.6
3-Nitrotoluene	na	na	na	--	--	2.77J	2.66	<0.125	<2.6	<0.125	<2.6	<0.125	<2.6
4-Amino-2,6-Dinitrotoluene	na	na	na	--	--	<1	<1	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
4-Nitrotoluene	na	na	na	--	--	--	--	<0.125	<2.6	<0.125	<2.6	<0.125	<2.6
HMX	400	na	na	--	--	--	--	<1.0	<2.6	<1.0	<2.6	<1.0	<2.6
Tetryl	na	na	na	--	--	--	--	<0.5	<2.6	<0.5	<2.6	<0.5	<2.6
Nitrobenzene	na	na	na	--	--	--	--	<0.125	<1.2	<0.125	<1.2	<0.125	<1.2
RDX	2	na	na	--	--	<1	<1	<0.5	<2.6	<0.5	<2.6	<0.5	<2.6

Notes: Background levels for Explosives are from Function Area I RI.
Background levels for metals are from AOC 57 RI.

LEGEND

Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-2
GROUNDWATER ANALYTICAL RESULTS - October 18-21, 1999
SOUTH POST IMPACT AREA WELLS (Sheet 3 of 3)
Devens - Ayer, Massachusetts
(Concentrations in ug/l)

PARAMETERS	BACKGROUND LEVELS	MA	Federal	10/21/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99
			DATE	10/21/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99	10/19/99
			Well No.	D - 1	41M-93-04X	41M-94-09A	41M-94-09B	41M-94-11X	41M-94-12X	41M-94-14X	41M-94-14XD
		MCLs (ug/l)									
EXPLOSIVES											
1,3,5-Trinitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
1,3-Dinitrobenzene	1	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4,6-Trinitrotoluene	2	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4-Dinitrotoluene	30	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Amino-4,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.26	<0.25	<0.25	<0.25	<0.25
3-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.27	<0.25	<0.25	<0.25	<0.25
4-Amino-2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.28	<0.25	<0.25	<0.25	<0.25
4-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.29	<0.25	<0.25	<0.25	<0.25
HMX	400	na	na	<0.25	<0.25	<0.25	<0.30	<0.25	<0.25	<0.25	<0.25
Tetryl	na	na	na	<0.25	<0.25	<0.25	<0.31	<0.25	<0.25	<0.25	<0.25
Nitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.32	<0.25	<0.25	<0.25	<0.25
RDX	2	na	na	<0.25	<0.25	<0.25	<0.33	<0.25	<0.25	<0.25	<0.25
VOLATILES											
1,1,2-Trichloroethane	na	5	5	pa	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	na	70	70	pa	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	na	5	5	pa	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	na	na	na	pa	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	na	5	5	pa	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	na	100	100	pa	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	na	5	5	pa	<1	<1	<1	<1	0.81	1.2	1.4
Toluene	na	1000	1000	pa	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	na	2	2	pa	3.6J	<1J	<1J	<1J	<1J	<1J	<1J

Note: Background levels for explosives taken from Functional Area I RI.

LEGEND	
Shaded areas are above background levels. -	25
J = Estimated value	pa = Analyzed under Army contract
na = Not available.	-- = Parameter not measured

TABLE 4-2
GROUNDWATER ANALYTICAL RESULTS - October 18-21, 1999
SOUTH POST IMPACT AREA WELLS (Sheet 1 of 3)
Fort Devens - Ayer, Massachusetts
(Concentrations in ug/l)

			DATE	10/21/99	10/21/99	10/20/99	10/20/99	10/20/99	10/20/99	10/20/99	10/20/99	10/20/99	10/18/99	10/18/99
			Well No.	25M-92-06X	25M-97-11X	26M-92-02X	26M-92-03X	26M-92-03XD	26M-92-04X	26M-92-04XD	26M-97-08X	26M-97-08XD	27M-92-01X	27M-93-05X
PARAMETERS	BACKGROUND		FILTERED?	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW
	LEVELS	MA	Federal											
METALS		MCLs (ug/l)												
Silver, Total Ag	4.6	na	na	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--	<0.8	<0.8
Aluminum, Total Al	6870	na	na	321	27.5	266	13.6	16.6	21.8	--	23.9	--	1300	1950
Arsenic, Total As	10.5	50	50	<1.0	<1.0	5.7	<1.0	<1.0	1.5	--	<1.0	--	<1.0	3.3
Barium, Total Ba	39.6	2000	2000	3.2	<2.8	<2.8	13.4	13.4	9.7	--	8.7	--	10.1	19.5
Beryllium, Total Be	5	4	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	<0.1	--	0.1	0.13
Calcium, Total Ca	14700	na	na	2450	2440	2460	4660	4580	12100	--	3710	--	8700	9260
Cadmium, Total Cd	4.01	5	5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--	<0.2	0.21
Cobalt, Total Co	25	na	na	<1.0	4.5	<1.0	<1.0	<1.0	1.7	--	2.6	--	<1.3	5.2
Chromium, Total Cr	14.7	100	100	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	--	0.74	--	4.1	17.1
Copper, Total Cu	8.09	1300	1300	0.98	<0.9	<0.9	1.2	1.1	<0.9	--	<0.9	--	3	24.9
Iron, Total Fe	9100	na	na	654	30.4	317	<12.7	<12.7	<12.7	--	22.9	--	1140	2270
Mercury, Total Hg	0.243	2	2	<0.1	<0.1	0.12	1.1J	0.13J	0.11	--	<0.1	--	<0.1	<0.1
Potassium, Total K	2370	na	na	624	804	469	1180	1100	985	--	774	--	2310	3520
Magnesium, Total Mg	3480	na	na	726	909	1030	427	421	1380	--	455	--	1110	2110
Manganese, Total Mn	291	na	na	10.3	1.3	3.8	3.4	3.5	15.4	--	3.5	--	23.3	88.2
Sodium, Total Na	10800	na	na	1980	2580	3220	1390	1560	3880	--	1780	--	4860	3520
Nickel, Total Ni	34.3	na	100	2.6	1.1	<0.9	<0.9	<0.9	10.7	--	1.5	--	2.2	10.7
Lead, Total Pb	4.25	15	15	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5	--	1.6	6.5
Antimony, Total Sb	3.03	6	6	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	--	<1.4	--	<2.5	<2.5
Selenium, Total Se	3.02	50	50	2.5	1.3	1.4	2	<1.2	<1.2	--	1.7	--	1.5	<1.4
Thallium, Total Tl	6.99	2	2	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	--	<1.4	--	<1.4	<1.4
Vanadium, Total V	11	na	na	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	--	<0.8	--	1.9	2.9
Zinc, Total Zn	21.1	na	na	4.1	2.1	4.3	0.83	1	4.6	--	1.8	--	5.3	67.2
EXPLOSIVES														
1,3,5-Trinitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
1,3-Dinitrobenzene	1	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4,6-Trinitrotoluene	2	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4-Dinitrotoluene	30	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Amino-4,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
3-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
4-Amino-2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
4-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
HMX	400	na	na	<0.25	<0.25	<0.25	17	--	38	39	8.2	7.7	1	<0.25
Tetryl	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Nitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.25	--	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
RDX	2	na	na	<0.25	<0.25	<0.25	97	--	240	250	46	44	3	<0.25

Notes: Background levels for Explosives are from Function Area I RI.
Background levels for metals are from AOC 57 RI.

LEGEND	
Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-2
GROUNDWATER ANALYTICAL RESULTS - October 18-21, 1999
SOUTH POST IMPACT AREA WELLS (Sheet 2 of 3)
Fort Devens - Ayer, Massachusetts
(Concentrations in ug/l)

			DATE	10/18/99	10/18/99	10/18/99	10/19/99	10/21/99	10/18/99	10/21/99	10/18/99	10/19/99
			Well No.	27M-93-06X	27M-93-08X	SPM-93-06X	SPM-93-08X	SPM-93-10X	SPM-93-12X	SPM-93-16X	SPM-97-23X	SPM-97-24X
PARAMETERS	BACKGROUND		FILTERED?	LOW FLOW	LOW FLOW	LOW FLOW	LOW-FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW	LOW FLOW
	LEVELS	MA	Federal									
METALS		MCLs (ug/l)										
Silver, Total Ag	4.6	na	na	1.1	<0.8	<0.8	<0.8	<1.0	<0.8	<1.0	<0.8	<0.8
Aluminum, Total Al	6870	na	na	237	18	2490	<7.2	190	55.8	13.6	21.9	107
Arsenic, Total As	10.5	50	50	<1.0	<1.0	8.1	<1.0	6.4	1	<1.0	<1.0	3.7
Barium, Total Ba	39.6	2000	2000	2.9	4.3	175	<2.8	<2.8	<2.8	<2.8	<2.8	2.9
Beryllium, Total Be	5	4	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Calcium, Total Ca	14700	na	na	4900	8310	89600	2560	2980	6120	2550	5180	9270
Cadmium, Total Cd	4.01	5	5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt, Total Co	25	na	na	<1.3	<1.3	<1.3	<1.3	<1.0	<1.3	<1.0	<1.3	<1.3
Chromium, Total Cr	14.7	100	100	3.4	1.2	3.6	1	1.2	4.5	<0.5	0.92	3
Copper, Total Cu	8.09	1300	1300	2.9	0.96	3	0.89	<0.9	2.3	<0.9	1.4	1.4
Iron, Total Fe	9100	na	na	302	12.1	30.9	8.9	243	105	<12.7	35.7	101
Mercury, Total Hg	0.243	2	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Potassium, Total K	2370	na	na	1820	1870	45400	410	1070	1150	558	819	1640
Magnesium, Total Mg	3480	na	na	1010	2050	<99.5	346	817	2100	652	1110	3760
Manganese, Total Mn	291	na	na	9.9	5.9	<0.2	0.27	4.4	13.1	0.47	4.2	8.5
Sodium, Total Na	10800	na	na	1860	5900	25300	2070	2960	4740	2360	2900	2900
Nickel, Total Ni	34.3	na	100	1.3	<0.9	<0.9	<0.9	<0.9	1.2	<0.9	<0.9	<0.9
Lead, Total Pb	4.25	15	15	6.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Antimony, Total Sb	3.03	6	6	<2.5	<2.5	<2.5	<2.5	<1.4	<2.5	<1.4	<2.5	<2.5
Selenium, Total Se	3.02	50	50	<1.4	<1.4	<1.4	<1.4	2.5	1.8	<1.2	<1.4	<1.4
Thallium, Total Tl	6.99	2	2	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Vanadium, Total V	11	na	na	<0.8	<0.8	3.3	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Zinc, Total Zn	21.1	na	na	3.1	1.3	3.1	3.2	2.6	2.1	1.5	14.3	3.9
EXPLOSIVES												
1,3,5-Trinitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
1,3-Dinitrobenzene	1	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4,6-Trinitrotoluene	2	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,4-Dinitrotoluene	30	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Amino-4,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
2-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
3-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
4-Amino-2,6-Dinitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
4-Nitrotoluene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
HMX	400	na	na	0.63	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Tetryl	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Nitrobenzene	na	na	na	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
RDX	2	na	na	1.3	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25

Notes: Background levels for Explosives are from Function Area I RI.
Background levels for metals are from AOC 57 RI.

LEGEND

Shaded areas are above background levels. -	25
J = Estimated value	
na = Not available.	-- = Parameter not measured

TABLE 4-8

Surface Water and Sediment Sample Analysis and Procedures

Sample Designation	Parameters Measured for All Samples	Preparation/Analysis Method
SPD-98-01X		
SPD-98-02X	TAL METALS	
SPD-98-03X	Sediment	USEPA 3050B/6010B
SPD-98-04X	Surface Water	USEPA 3010B/6010B
SPD-98-05X		
SPD-98-06X	EXPLOSIVES	
SPD-98-07X	Sediment	USEPA 3541/8330
SPD-98-08X	Surface Water	USEPA 3541/8330
SPD-98-09X		
SPD-98-10X	PESTICIDES	
SPD-98-11X	Surface Water	USEPA 3510C,
SPD-98-12X		3520C/8081A
SPD-98-13X		
SPD-98-14X	TOTAL ORGANIC	
SPD-98-15X	CARBON	
SPD-98-16X	Sediment	Not Applicable/USEPA
SPD-98-17X		9060
SPD-98-18X		
SPD-98-19X		
SPD-98-20X	GRAIN SIZE ANALYSIS	
SPD-98-21X	Sediment	Not Applicable/ASTM
SPD-98-22X		D421,D422
SPD-98-23X		
SPD-98-24X		
SPD-98-25X		
SPD-98-26X		
SPD-98-27X		
SPD-98-28X		
SPD-98-29X		
SPD-98-30X		
SPD-98-31X		

TABLE 4-9

SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS

Sample Location	Sample ID Number (SPD-9x-xx)	
	1993	1998
SPIA Monitored Area		
Cranberry Pond		30, 31
Heron Pond	04, 08	04, 08
New Cranberry Pond	01, 02, 03	01, 02, 03
Sierra Wetland	05, 06, 07	05, 06, 07
Slate Rock Brook	09 - 14	09 – 16*
SPIA Background Area		
Clear Pond		20, 21
Ponakin Brook		24, 25, 26
Ponakin Brook Pond		23
Ponakin Brook Wetlands		27, 28, 29
Spectacle Brook		18, 19
Spectacle Pond		17
Spectacle Brook Wetland		22

- Sample SPD-98-12X was not collected due to flooding by beaver dam.

TABLE 4-10: FIELD WATER QUALITY DATA

Sample ID Number	Date	Location	Depth (in.)	Water Temp (° C)	Dissolved Oxygen (mg/l)	pH	Specific Conduc. (umhos/cm^{-1})	Turbidity (JTU)
SPD-98-01	20-Nov-98	New Cranberry Pond	8	4.35	6.18	5.83	31.0	1.60
SPD-98-02	19-Nov-98	New Cranberry Pond	6	1.45	7.60	5.84	34.7	5.00
SPD-98-03	19-Nov-98	New Cranberry Pond	6	1.22	3.00	5.75	32.4	1.60
SPD-98-04	18-Nov-98	Heron Pond	8	5.89	7.50	5.73	22.4	0.70
SPD-98-05	19-Nov-98	Sierra Wetland	4	3.06	2.39	4.74	21.9	20.00
SPD-98-06	19-Nov-98	Sierra Wetland	6	5.75	4.72	5.45	19.0	0.80
SPD-98-07	19-Nov-98	Sierra Wetland	8	2.20	5.10	4.76	23.3	2.00
SPD-98-08	18-Nov-98	Heron Pond	8	6.56	6.94	5.72	25.3	0.60
SPD-98-09	17-Nov-98	Slate Rock Brook	4	5.25	9.45	6.06	33.3	0.60
SPD-98-10	16-Nov-98	Slate Rock Brook	6	6.30	11.60	6.31	32.5	0.75
SPD-98-11	16-Nov-98	Slate Rock Brook	6	6.36	11.56	6.46	32.4	0.60
SPD-98-12	No Sample	Slate Rock Brook						
SPD-98-13	17-Nov-98	Slate Rock Brook	12	5.59	6.68	5.73	35.7	1.10
SPD-98-14	17-Nov-98	Slate Rock Brook	14	6.07	7.94	5.92	35.4	0.90
SPD-98-15	16-Nov-98	Slate Rock Brook	6	6.21	11.75	6.1	32.5	0.65
SPD-98-16	16-Nov-98	Slate Rock Brook	4	6.45	11.68	6.28	32.8	0.75
SPD-98-17	18-Nov-98	Spectacle Pond	11	8.41	9.38	6.44	18.4	1.00
SPD-98-18	19-Nov-98	Spectacle Brook	18	3.6	4.31	5.71	79.7	0.70
SPD-98-19	19-Nov-98	Spectacle Brook	4	6.61	4.7	5.58	77.2	1.00
SPD-98-20	18-Nov-98	Clear Pond	8	5.55	10.46	6.51	36.6	1.60
SPD-98-21	18-Nov-98	Clear Pond	6	5.02	9.29	6.85	36.9	1.40
SPD-98-22	18-Nov-98	Spectacle Brk Wetland	8	4.85	9.14	6.51	45.7	15.00
SPD-98-23	18-Nov-98	Ponakin Brook Pond	18	4.64	9.56	6.34	33.9	1.90
SPD-98-24	18-Nov-98	Ponakin Brook	6	5.35	10.65	6.36	34.8	1.70
SPD-98-25	17-Nov-98	Ponakin Brook	6	5.94	11.25	5.88	27	1.30
SPD-98-26	17-Nov-98	Ponakin Brook	4	5.79	12	6.19	27.9	0.90
SPD-98-27	17-Nov-98	Ponakin Brk Wetland	4	5.67	11.68	6.04	30.5	3.40
SPD-98-28	20-Nov-98	Ponakin Brk Wetland	5	7.19	10.95	6.15	36.7	8.00
SPD-98-29	20-Nov-98	Ponakin Brk Wetland	2	5.25	9.12	5.98	32.9	6.00
SPD-98-30	16-Nov-98	Cranberry Pond	12	7.42	12.06	7.61	11.1	4.70
SPD-98-31	16-Nov-98	Cranberry Pond	8	7.85	12.07	6.62	10.7	4.85

* No sample collected in 1998. Site impounded by beaver dam.

Ta[illegible] l
Ecol[illegible]dy
1998 Surfac[illegible]er Results

Ponds/Brooks/Wetlands		New Cranberry Pond				Heron Pond	Sierra Wetland				Heron Pond	Slate Rock Brook						
SAMPLE ID	Screening Values	SPD-98-01X	'-01XDuplicate	SPD-98-02X	SPD-98-03X	SPD-98-04X	SPD-98-05X	SPD-98-06X	'-06XDuplicate	SPD-98-07X	SPD-98-08X	SPD-98-09X	SPD-98-10X	SPD-98-11X	SPD-98-12X	SPD-98-13X	SPD-98-14X	SPD-98-15X
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	*	µg/l	µg/l	µg/l
TAL METALS Aluminum	25-773	<200	226	190	65.0	<37.0	**1010**	54.0	44.5	284	70.0	143	111	124	*	96.5	37.0	120
Antimony	3.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	*	<2.0	<2.0	<2.0
Arsenic	<2.0-6.7	<5.0	<5.0	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	2.4	1.8	<1.6	*	<1.6	<1.6	1.9
Barium	<2.8-40.1	<10.0	<10.0	5.2	3.8	2.4	18.8	8.0	8.2	7.2	2.9	4.3	3.7	3.7	*	3.5	3.6	4.0
Beryllium	5.0	<3.0	<3.0	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	*	<0.11	<0.11	0.11
Cadmium	4.0	<3.0	<3.0	0.33	0.38	0.31	0.39	0.26	0.28	0.38	0.4	0.34	0.29	0.36	*	0.29	0.25	0.38
Calcium	858-20,600	3120	2880	2800	2640	1460	1800	1550	1560	1010	1620	2520	2650	2710	*	2760	2440	2820
Chromium (total)	6.0	<5.0	<5.0	1.1	2.1	<0.60	1.9	<0.60	<0.60	0.95	<0.65	<0.60	<0.60	0.80	*	<0.60	0.62	0.78
Cobalt	25.0	<5.0	<5.0	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.60	<0.65	<0.65	<0.65	*	<0.65	<0.65	<0.65
Copper	8.1	<5.0	5.0	5.3	6.8	2.8	**17.0**	4.7	4.4	6.0	2.8	3.3	3.3	3.2	*	2.7	2.3	3.5
Iron	<78-1630	472	481	805	475	353	**4240**	98.0	130	487	525	940	665	680	*	290	570	710
Lead	<1.3-8.68	3.5	5.2	2.3	<1.3	<1.3	**19.0**	<1.3	<1.3	<1.3	1.4	1.6	<1.3	1.5	*	<1.3	3.0	1.6
Magnesium	<500-3340	758	751	720	660	388	498	432	430	320	435.0	690	715	720	*	800	690	720
Manganese	12.8-357	32.7	35.5	58.0	29.6	54	**1630**	23.4	23.2	21.0	61.5	78.5	26.6	27.7	N	27.2	22.8	33.8
Mercury		<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	O	<0.10	<0.10	<0.10
Nickel	34.4	<5.0	<5.0	<1.2	<1.2	1.4	3.5	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	T	<1.2	<1.2	<1.2
Potassium	<375-3150	954	1030	815	730	510	765	369	400	248	488.0	1350	1130	1130		444	373	1140
Selenium	3.02	<5.0	<5.0	<1.5	<1.5	<1.5	1.5	<1.5	<1.5	<1.5	<1.5	<1.5	1.5	<1.5	S	<1.5	<1.5	1.5
Silver	4.6	<3.0	<3.0	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	0.8	<0.60	<0.60	0.62	A	<0.60	<0.60	<0.60
Sodium	799-36300	2770	2760	2780	2600	2610	1630	2060	2060	1820	2530	2640	2600	2660	M	3020	2820	2660
Thallium		<10.0	<10.0	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	P	<2.8	<2.8	<2.8
Vanadium	11.0	<5.0	<5.0	<0.70	<0.70	<0.70	2.6	<0.70	<0.70	0.86	<0.70	<0.70	<0.70	<0.70	L	<0.70	<0.70	<0.70
Zinc	<18-33.4	19.7	14.9	31.0	16.2	15.8	32.9	20.0	0.55	17.4	13.0	15.2	0.55	**35.4**	E	17.8	17.2	0.55
Explosives															D			
2-Amino-4,6-dinitrotoluene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
4-Amino-2,6,dinitrotoluene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
1,3-Dinitrobenzene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
2,4-Dinitrotoluene	0.11	<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
2,6-Dinitrotoluene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
HMX		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
Nitrobenzene	27,000	<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
2-Nitrotoluene		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
3-Nitrotoluene		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
4-Nitrotoluene		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
RDX		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
Tetryl		<3.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	*	<5.5	<2.6	<2.6
1,3,5-Trinitrobenzene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
2,4,6-Trinitrotoluene		<1.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	*	<2.5	<1.2	<1.2
Pesticides 4,4'-DDD		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
4,4'-DDE		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
4,4'-DDT		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Aldrin		<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
alpha-Benzenehexachloride	9.2	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
alpha-Endosulfan/Endosulfan I	0.22	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Endosulfan II	0.22	<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
beta-Benzenehexachloride	16.3	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
delta-Benzenehexachloride		<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
gamma-BHC (Lindane)	2.0	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Chlordane-alpha	2.4	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Chlordane-gamma	2.4	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Dieldrin	2.5	<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Endosulfan sulfate		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Endrin	0.18	<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Endrin aldehyde		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Endrin ketone		<0.10	<0.10	<0.11	<0.11	<0.10	<0.14	<0.11	<0.11	<0.11	<0.10	<0.10	<0.10	<0.11	*	<0.10	<0.10	<0.11
Heptachlor	0.52	<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Heptachlor epoxide		<0.052	<0.052	<0.056	<0.053	<0.052	<0.069	<0.055	<0.055	<0.053	<0.052	<0.052	<0.052	<0.053	*	<0.051	<0.052	<0.055
Methoxychlor		<0.52	<0.52	<0.056	<0.53	<0.52	<0.69	<0.55	<0.55	<0.53	<0.052	<0.52	<0.52	<0.53	*	<0.51	<0.52	<0.55
Toxaphene		<5.2	<5.2	<5.6	<5.3	<5.2	<6.9	<5.5	<5.5	<5.3	<5.2	<5.2	<5.2	<5.3	*	<5.1	<5.2	<5.5

> Screening Values Bolded values exceed screening values in Appendix A of the Ecological Sampling Work Plan (Stone & Webster, 1998)

Ta' '1
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1998 Surfac. ier Results

Brooks/Ponds/ Wetlands	Slate Rock Brook		Spectacle Pond	Spectacle Brook			Clear Pond		Spectacle Brk. Wetland	Ponakin Brook Pond	Ponakin Brook			Ponakin Brook Wetlands			Cranberry Pond	
SAMPLE ID	Screening Values	SPD-98-16X	SPD-98-17X	SPD-98-18X	SPD-98-19X	' -19X Duplicate	SPD-98-20X	SPD-98-21X	SPD-98-22X	SPD-98-23X	SPD-98-24X	SPD-98-25X	SPD-98-26X	SPD-98-27X	SPD-98-28X	SPD-98-29X	SPD-98-30X	SPD-98-31X
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
TAL Metals Aluminum	25-773	118	<37.0	64.0	54.0	51.0	<37.0	64.0	237	64.0	<37.0	131	86.0	**830**	688	**2810**	<37.0	<37.0
Antimony	3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<3.9	<2.0	<2.0
Arsenic	<2.0-6.7	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	5.5	<1.6	<1.6	2.4	2.2	5.9	<5.0	**21.6**	<1.6	<1.6
Barium	<2.8-40.1	3.5	12.2	10.4	16.0	15.5	4.7	5.4	9.8	4.6	4.0	2.9	2.4	9.2	10.0	24.7	5.1	5.4
Beryllium	5.0	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<3.0	0.54	<0.11	<0.11
Cadmium	4.0	0.24	0.23	0.28	0.16	0.31	0.28	0.32	0.32	0.34	0.30	0.31	0.22	0.29	<3.0	0.37	0.25	0.30
Calcium	858-20,600	2490	5350	6150	4680	4620	2800	3020	3280	3400	3200	2040	2020	2880	2710	4000	910	965
Chromium (total)	6.0	<0.60	<0.60	0.72	<0.60	<0.60	<0.60	<0.60	0.64	<0.60	<0.60	<0.60	<0.60	0.91	<5.0	2.6	<0.60	<0.60
Cobalt	25.0	<0.65	<0.65	<0.65	0.90	<0.65	<0.65	<0.65	0.94	<0.65	<0.65	<0.65	<0.65	3.0	<5.0	11.1	<0.65	<0.65
Copper	8.1	2.9	2.6	4.1	4.1	5.8	2.5	2.9	3.3	2.9	3.0	2.5	2.3	3.7	<5.0	4.8	4.6	5.0
Iron	<78-1630	710	202	298	250	268	188	284	3620	442	510	432	354	**2920**	786	**11800**	313	344
Lead	<1.3-8.68	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	3.2	<1.3	<1.3	1.6	<1.3	4.6	3.1	9.9	8.2	9.0
Magnesium	<500-3340	670	980	1350	1260	1200	615	655	690	865	795	462	462	660	1140	1700	252	267
Manganese	12.8-357	41.6	61.5	266	318	310	53.5	86.5	248	23.6	27.5	33.5	22.0	**550**	76.5	**2020**	22.2	21.4
Mercury		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	<0.10	<0.10
Nickel	34.4	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<5.0	3.6	<1.2	<1.2
Potassium	<375-3150	1100	910	1240	1290	1100	645	675	830	730	705	386	352	600	567	1040	457	425
Selenium	3.02	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<5.0	<3.0	<1.5	<1.5
Silver	4.6	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	0.62	<0.60	<0.60	<0.60	0.80	<0.60	<0.60	<3.0	<1.2	<0.60	<0.60
Sodium	799-36300	2490	22800	6000	8200	7750	2720	2860	2970	2030	1940	2420	2350	2520	3260	5310	1090	1180
Thallium		<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<10.0	<5.7	<2.8	<2.8
Vanadium	11.0	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	<0.70	1.4	<0.70	<0.70	0.96	<0.70	2.0	<5.0	6.1	<0.70	<0.70
Zinc	<18-33.4	14.2	11.1	14.9	15.2	20.4	21.2	10.7	52.5	13.0	11.6	14.8	12.0	**33.6**	10	**56.5**	17.9	12.8
Explosives																		
2-Amino-4,6-dinitrotoluene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
4-Amino-2,6,dinitrotoluene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
1,3-Dinitrobenzene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
2,4-Dinitrotoluene	0.11	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
2,6-Dinitrotoluene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
HMX		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
Nitrobenzene	27,000	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
2-Nitrotoluene		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
3-Nitrotoluene		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
4-Nitrotoluene		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
RDX		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
Tetryl		<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<3.4	<2.6	<3.1	<2.6	<4.1	<2.6	<2.6
1,3,5-Trinitrobenzene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
2,4,6-Trinitrotoluene		<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.5	<1.2	<1.4	<1.2	<1.9	<1.2	<1.2
Pesticides 4,4'-DDD		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
4,4'-DDE		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
4,4'-DDT		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Aldrin	3.0	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
alpha-Benzenehexachloride	9.2	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
alpha-Endosulfan/Endosulfan I	0.22	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
Endosulfan II	0.22	<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
beta-Benzenehexachloride	16.3	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
delta-Benzenehexachloride		<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
gamma-BHC (Lindane)	2.0	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
Chlordane-alpha	2.4	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
Chlordane-gamma	2.4	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
Dieldrin	2.5	<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Endosulfan sulfate		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Endrin	0.18	<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Endrin aldehyde		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Endrin ketone		<0.11	<0.10	<0.11	<0.11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.13	<0.10	<0.11	<0.12	<0.11	<0.13	<0.10	<0.11
Heptachlor	0.52	<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.051	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.051
Heptachlor epoxide		<0.053	<0.051	<0.053	<0.055	<0.054	<0.052	<0.051	<0.053	<0.054	<0.063	<0.052	<0.054	<0.062	<0.055	<0.067	<0.051	<0.053
Methoxychlor		<0.53	<0.51	<0.53	<0.55	<0.54	<0.052	<0.51	<0.53	<0.54	<0.63	<0.52	<0.54	<0.62	<0.55	<0.067	<0.51	<0.53
Toxa'		<5.3	<5.1	<5.3	<5.5	<5.4	<5.2	<'	<5.3	<5.4	<6.3	<5.2	<5.4	<6.2	<5.5	<6.3	.1	<5.3

· Screening Values Bolded values exceed screening values in Appendix A of the Ecological S g Work Plan (Stone & Webster, 1998)

TABLE 4-12

REVISED SCREENING VALUES FOR SURFACE WATER

Metal	Screening Value	
	SPIA RI	**Modified**
Aluminum	25 – 733	25 – 733
Antimony	3.0[b]	**2.0[b]**
Arsenic	<2 – 6.7	<2 – 6.7
Barium	<2.8 - 40.1	<2.8 – 40.1
Beryllium	5.0[b]	**0.11[b]**
Cadmium	4.0[b]	**0.16 – 0.34**
Calcium	858 – 20,600	858 – 20,600
Chromium	6.0[b]	**<0.60 – 0.91**
Cobalt	25.0[b]	**<0.65 – 3.0**
Copper	8.1[b]	**2.3 – 5.8**
Iron	<78 – 1,630	<78 –1,630
Lead	<1.3 – 8.68	<1.3 – 8.68
Magnesium	<500 – 3,340	<500 – 3,340
Manganese	12.8 - 357	12.8 - 357
Mercury	0.24[b]	**0.10[b]**
Nickel	34.4[b]	**1.2[b]**
Potassium	<375 – 3,150	<375 – 3,150
Selinium	3.02[b]	**1.5[b]**
Silver	4.6[b]	**<0.6 – 0.8**
Sodium	799 – 36,300	799 – 36,300
Thallium	7.0[b]	**<2.8[b]**
Vanadium	11.0[b]	**<0.70 – 2.0[b]**
Zinc	<18 – 33.4	<18 – 33.4

Notes: a. Screening values modified only if SPIA RI values were based exclusively on detection limits. Modified values based on samples taken outside SPIA in 1998, excluding those with high turbidity (SPD-98-22X, SPD-98-28X, and SPD-98-29X). n=12.

b. Detection Limit.

Ta' ((ace Water Results

Comparison of 1993

SAMPLE ID	SPD-93-01X	SPD-98-01X	-01XDuplicate 1998	SPD-93-02X	SPD-98-02X	SPD-93-03X	SPD-98-03X	SPD-93-04X	SPD-98-04X	SPD-93-05X	SPD-98-05X	SPD-93-06X	SPD-98-06X	-06XDuplicate 1998	SPD-93-07X	SPD-98-07X
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
TAL Metals Aluminum	351	<200	226	1500	190	303	65.0	390	<37.0	176	1010	2940	54.0	44.5	294	284
Antimony	<5.00	<5.0	<5.0	<5.00	<2.0	9.83	<2.0	<5.00	<2.0	<5.00	<2.0	<5.00	<2.0	<2.0	<5.00	<2.0
Arsenic	2.47	<5.0	<5.0	7.99	<1.6	2.33	<1.6	2.87	<1.6	2.2	<1.6	15.6	<1.6	<1.6	4.41	<1.6
Barium	2.79 J	<10.0	<10.0	21.3	5.2	4.42 J	3.8	6.18 J	2.4	3.01 J	18.8	35.9	8.0	8.2	13.6	7.2
Beryllium	<5.00	<3.0	<3.0	0.229 BJ	<0.11	0.122 BJ	<0.11	0.136 BJ	<0.11	0.165 BJ	<0.11	0.298 BJ	<0.11	<0.11	0.199 BJ	<0.11
Cadmium		<3.0	<3.0		0.33		0.38		0.31		0.39		0.26	0.28		0.38
Calcium	2300	3120	2880	3890	2800	4020	2640	4870	1460	2200	1800	6400	1550	1560	2500	1010
Chromium (total)	<10.0	<5.0	<5.0	<10.0	1.1	10.0 J	2.1	5.69 J	<0.60	4.71 J	1.9	13	<0.60	<0.60	<10.00	0.95
Cobalt	<10.0	<5.0	<5.0	<10.0	<0.65	<10.0	<0.65	<10.0	<0.65	<10.0	<0.65	7.83 J	<0.65	<0.65	<10.00	<0.65
Copper	<10.0	<5.0	5.0	7.00 J	5.3	1.12 J	6.8	<10.0	2.8	1.25 J	17.0	6.76 J	4.7	4.4	2.82 J	6.0
Iron	438	472	481	1400	805	513	475	1300	353	801	4240	12000	98.0	130	4800	487
Lead	<5.00	3.5	5.2	27.7	2.3	<5.00	<1.3	20.5	<1.3	<5.00	19.0	17.3	<1.3	<1.3	<5.00	<1.3
Magnesium	745	758	751	60.9 J	720	886	660	976	388	667	498	1910	432	430	657	320
Manganese	21.5	32.7	35.5	84.2	58.0	37.2	29.6	105	54	77.9	1630	338	23.4	23.2	433	21.0
Mercury		<0.20	<0.20		<0.10		<0.10		<0.10		<0.10		<0.10	<0.10		<0.10
Nickel	<10.0	<5.0	<5.0	<10.0	<1.2	<10.0	<1.2	<10.0	1.4	<10.0	3.5	10.7	<1.2	<1.2	<10.0	<1.2
Potassium	<1000	954	1030	<1000	815	<1000	730	<1000	510	<1000	765	1110	369	400	1410	248
Selenium	<2.00	<5.0	<5.0	<2.00	<1.5	<2.00	<1.5	<2.00	<1.5	<2.00	1.5	<2.00	<1.5	<1.5	<2.00	<1.5
Silver	<2.00	<3.0	<3.0	<2.00	<0.60	<2.00	<0.60	<2.00	<0.60	<2.00	<0.60	1.44 BJ	<0.60	<0.60	1.73 BJ	<0.60
Sodium	934 J	2770	2760	1990 J	2780	1830 J	2600	3920	2610	776 J	1630	6190	2060	2060	<2000	1820
Thallium		<10.0	<10.0		<2.8		<2.8		<2.8		<2.8		<2.8	<2.8		<2.8
Vanadium	<10.0	<5.0	<5.0	5.09	<0.70	<10.0	<0.70	<10.0	<0.70	<10.0	2.6	6.99 J	<0.70	<0.70	<10.0	0.86
Zinc	<20.0	19.7	14.9	89.3	31.0	3.76 B	16.2	15.8 BJ	15.8	34.7	32.9	75.1 B	20.0	0.55	56.2 B	17.4
Explosives																
2-Amino-4,6-dinitrotoluene		<1.6	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2	<1.2		<1.2
4-Amino-2,6,dinitrotoluene		<1.6	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2	<1.2		<1.2
1,3-Dinitrobenzene	<1.00	<1.6	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.2	0.370 JC	<1.2
2,4-Dinitrotoluene	<1.00	<1.6	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.2	<1.00	<1.2
2,6-Dinitrotoluene		<1.6	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2	<1.2		<1.2
HMX		<3.6	<2.6		<2.6		<2.6		<2.6		<2.6		<2.6	<2.6		<2.6
Nitrobenzene	<1.00 L	<1.6	<1.2	<1.00 L	<1.2	<1.00 L	<1.2	<1.00 L	<1.2	<1.00 L	<1.2	<1.00 L	<1.2	<1.2	4.04 LC	<1.2
2-Nitrotoluene	<1.00 R	<3.6	<2.6	<1.00 L	<2.6	<1.00 R	<2.6	<1.00 R	<2.6	<1.00 R	<2.6	<1.00 R	<2.6	<2.6	3.14 LC	<2.6
3-Nitrotoluene	<1.00	<3.6	<2.6	<1.00	<2.6	<1.00	<2.6	<1.00	<2.6	<1.00	<2.6	<1.00	<2.6	<2.6	1.24 C	<2.6
4-Nitrotoluene		<3.6	<2.6		<2.6		<2.6		<2.6		<2.6		<2.6	<2.6		<2.6
RDX		<3.6	<2.6		<2.6		<2.6		<2.6		<2.6		<2.6	<2.6		<2.6
Tetryl		<3.6	<2.6		<2.6		<2.6		<2.6		<2.6		<2.6	<2.6		<2.6
1,3,5-Trinitrobenzene		<1.6	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2	<1.2		<1.2
2,4,6-Trinitrotoluene		<1.6	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2	<1.2		<1.2
Pesticides 4,4'-DDD	<0.040	<0.10	<0.10	<0.160	<0.11	<0.040	<0.11	<0.045	<0.10	<0.046 J	<0.14	<0.200	<0.11	<0.11	<0.160	<0.11
4,4'-DDE	<0.040	<0.10	<0.10	<0.160	<0.11	<0.040	<0.11	<0.045	<0.10	<0.046 J	<0.14	<0.200	<0.11	<0.11	<0.160	<0.11
4,4'-DDT	<0.040	<0.10	<0.10	<0.160	<0.11	<0.040	<0.11	<0.045	<0.10	<0.046 J	<0.14	<0.200	<0.11	<0.11	<0.160	<0.11
Aldrin		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
alpha-Benzenehexachloride	<0.02	<0.052	<0.052	<0.080	<0.056	<0.020	<0.053	<0.023	<0.052	<0.014 JC	<0.069	<0.100 L	<0.055	<0.055	<0.080	<0.053
alpha-Endosulfan/Endosulfan I	<0.02	<0.052	<0.052	<0.240 JU	<0.056	<0.020	<0.053	<0.023	<0.052	<0.023 J	<0.069	<0.100	<0.055	<0.055	<0.080	<0.053
Endosulfan II		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
beta-Benzenehexachloride	0.052 U	<0.052	<0.052	0.140 JU	<0.056	<0.020	<0.053	<0.023	<0.052	0.081 JU	<0.069	0.130 C	<0.055	<0.055	<0.048 JU	<0.053
delta-Benzenehexachloride		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
gamma-BHC (Lindane)	<0.020	<0.052	<0.052	<0.080	<0.056	<0.020	<0.053	<0.063 U	<0.052	<0.023 J	<0.069	<0.100 J	<0.055	<0.055	<0.080	<0.053
Chlordane-alpha		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
Chlordane-gamma		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
Dieldrin		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
Endosulfan sulfate		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
Endrin		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
Endrin aldehyde		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
Endrin ketone		<0.10	<0.10		<0.11		<0.11		<0.10		<0.14		<0.11	<0.11		<0.11
Heptachlor		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
Heptachlor epoxide		<0.052	<0.052		<0.056		<0.053		<0.052		<0.069		<0.055	<0.055		<0.053
Methoxychlor		<0.52	<0.52		<0.056		<0.53		<0.52		<0.69		<0.55	<0.55		<0.53
Toxaphene		<5.2	<5.2		<5.6		<5.3		<5.2		<6.9		<5.5	<5.5		<5.3
> 1993 values																

Tab' ' 13

Comparison of 1993 'face Water Results

SAMPLE ID	SPD-93-08X	SPD-98-08X	SPD-93-09X	SPD-98-09X	SPD-93-10X	SPD-98-10X	SPD-93-11X	-11XDuplicate 1993	SPD-98-11X	SPD-93-12X	SPD-98-12X	SPD-93-13X	SPD-98-13X	SPD-93-14X	SPD-98-14X
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	•	µg/l	µg/l	µg/l	µg/l
TAL Metals Aluminum	60.1	70.0	191	143	112	111	208	191	124	191	•	305	96.5	48.3	37.0
Antimony	<5.00	<2.0	<5.00	<2.0	<5.00	<2.0	<5.00	<5.00	<2.0	<5.00	•	<5.00	<2.0	<5.00	<2.0
Arsenic	<2.00	<1.6	<2.00	2.4	3.44	1.8	2.28	<2.00	<1.6	<2.00	•	2.84	<1.6	<2.00	<1.6
Barium	6.15J	2.9	<10.0	4.3	<10.0	3.7	<10.0	<10.0	3.7	<10.0	•	<10.0	3.5	<10.0	3.6
Beryllium	0.983 BJ	<0.11	<5.00	<0.11	<5.00	<0.11	<5.00	<5.00	<0.11	<5.00	•	<5.00	<0.11	<5.00	<0.11
Cadmium		0.4		0.34		0.29			0.36		•		0.29		0.25
Calcium	2030	1620	3330	2520	3420	2650	3340	3440	2710	3440	•	3390	2760	3300	2440
Chromium (total)	<10.00	<0.65	<10.00	<0.60	28.1	<0.60	29.5	21.6	0.80	21.6	•	16.5	<0.60	18.7	0.62
Cobalt	4.72 J	<0.60	<10.00	<0.65	<10.00	<0.65	<10.0	<10.0	<0.65	<10.0	•	<10.0	<0.65	<10.0	<0.65
Copper	<10.00	2.8	<10.00	3.3	<10.00	3.3	<10.0	<10.0	3.2	<10.0	•	<10.0	2.7	<10.0	2.3
Iron	1300	525	215	940	806	665	626	385	680	385	•	516	290	157	570
Lead	<5.00	1.4	<5.00	1.6	<5.00	<1.3	6.48	<5.00	1.5	<5.00	•	<5.00	<1.3	<5.00	3.0
Magnesium	545	435.0	846	690	864	715	850	983	720	983	•	1000	800	9920	690
Manganese	133	61.5	15.1	78.5	134	26.6	76.2	69.2	27.7	69.2	N	39.5	27.2	10.4	22.8
Mercury		<0.10		<0.10		<0.10			<0.10		O		<0.10		<0.10
Nickel	<10.0	<1.2	11	<1.2	19.8	<1.2	21.5	14.9	<1.2	14.9	T	13.4	<1.2	13.5	<1.2
Potassium	1540	488.0	1630	1350	1880	1130	1680	1360	1130	1360		1210	444	1190	373
Selenium	<2.00	<1.5	2.72	<1.5	<2.00	1.5	<2.00	<2.00	<1.5	<2.00	S	<2.00	<1.5	<2.00	<1.5
Silver	1.62 BJ	0.8	<2.00	<0.60	<2.00	<0.60	<2.00	<2.00	0.62	<2.00	A	<2.00	<0.60	<2.00	<0.60
Sodium	1940 J	2530	3620	2640	3580	2600	3540	4000	2660	4000	M	3940	3020	3960	2820
Thallium		<2.8		<2.8		<2.8			<2.8		P		<2.8		<2.8
Vanadium	<10.0	<0.70	<10.0	<0.70	<10.0	<0.70	<10.0	<10.0	<0.70	<10.0	L	<10.0	<0.70	<10.0	<0.70
Zinc	<20.0	13.0	<20.0	15.2	32.5	0.55	31	34.2	35.4	34.2	E	25.6	17.8	27.8	17.2
Explosives						<1.2			<1.2		D				
2-Amino-4,6-dinitrotoluene		<1.2		<1.2		<1.2			<1.2		•		<2.5		<1.2
4-Amino-2,6,dinitrotoluene		<1.2		<1.2		<1.2			<1.2		•		<2.5		<1.2
1,3-Dinitrobenzene	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.00	<1.2	<1.00	•	0.431 JC	<2.5	<1.00	<1.2
2,4-Dinitrotoluene	<1.00	<1.2	<1.00	<1.2	<1.00	<1.2	<1.00	<1.00	<1.2	<1.00	•	0.326 JC	<2.5	<1.00	<1.2
2,6-Dinitrotoluene		<1.2		<1.2		<2.6			<2.6		•		<2.5		<1.2
HMX		<2.6		<2.6		<1.2			<1.2		•		<5.5		<2.6
Nitrobenzene	<1.00 L	<1.2	<1.00	<1.2	<1.00	<2.6	<1.00	<1.00	<2.6	<1.00	•	<1.00	<2.5	<1.00	<1.2
2-Nitrotoluene	<1.00 R	<2.6	<1.00	<2.6	4.99 U	<2.6	5.61 U	3.66	<2.6	3.66	•	0.652 JC	<5.5	<1.00	<2.6
3-Nitrotoluene	<1.00	<2.6	<1.00	<2.6	<1.00	<2.6	<1.00	<1.00	<2.6	<1.00	•	<1.00	<5.5	<1.00	<2.6
4-Nitrotoluene		<2.6		<2.6		<2.6			<2.6		•		<5.5		<2.6
RDX		<2.6		<2.6		<2.6			<2.6		•		<5.5		<2.6
Tetryl		<2.6		<2.6		<1.2			<1.2		•		<5.5		<2.6
1,3,5-Trinitrobenzene		<1.2		<1.2		<1.2			<1.2		•		<2.5		<1.2
2,4,6-Trinitrotoluene		<1.2		<1.2							•		<2.5		<1.2
Pesticides 4,4'-DDD	<0.160	<0.10	0.04	<0.10	0.04	<0.10	0.026 JC	<0.040	<0.11	<0.040	•	<0.040	<0.10	<0.040	<0.10
4,4'-DDE	<0.160	<0.10	0.04	<0.10	0.04	<0.10	0.019 JC	<0.040	<0.11	<0.040	•	<0.040	<0.10	<0.040	<0.10
4,4'-DDT	<0.160	<0.10	0.04	<0.10	0.04	<0.10	<0.040	<0.040	<0.11	<0.040	•	<0.040	<0.10	<0.040	<0.10
Aldrin		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
alpha-Benzenehexachloride	<0.080 J	<0.052	<0.020	<0.052	<0.020	<0.052	<0.020	<0.020	<0.053	<0.020	•	<0.020	<0.051	<0.020	<0.052
alpha-Endosulfan/Endosulfan I	<0.080	<0.052	0.181 RU	<0.052	0.682 RU	<0.052	<0.020 K	0.233 RC	<0.053	0.233 RC	•	<0.020	<0.051	<0.020	<0.052
Endosulfan II		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
beta-Benzenehexachloride	0.130 U	<0.052	<0.020	<0.052	<0.020	<0.052	<0.020	<0.020	<0.053	<0.020	•	<0.020	<0.051	<0.020	<0.052
delta-Benzenehexachloride		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
gamma-BHC (Lindane)	<0.080 J	<0.052	<0.020	<0.052	<0.020	<0.052	<0.020	<0.020	<0.053	<0.020	•	<0.020	<0.051	<0.020	<0.052
Chlordane-alpha		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
Chlordane-gamma		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
Dieldrin		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
Endosulfan sulfate		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
Endrin		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
Endrin aldehyde		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
Endrin ketone		<0.10		<0.10		<0.10			<0.11		•		<0.10		<0.10
Heptachlor		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
Heptachlor epoxide		<0.052		<0.052		<0.052			<0.053		•		<0.051		<0.052
Methoxychlor		<0.052		<0.52		<0.52			<0.53		•		<0.51		<0.52
Toxaphene		<5.2		<5.2		<5.2			<5.3		•		<5.1		
)3 values															